Morgan Stanley | RESEARCH

UPDATE

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Global Interest Rate Strategist

America's Next Top Fed Chair Is...

Investors expect the president to nominate the next Fed Chair in the coming week - a week that couldn't possibly be any busier. The BoJ, Fed, and BoE meet and important data arrive in the US (PCE inflation, ISM, Nonfarm payrolls), the Euro area (CPI, GDP), and the UK (PMI).

Duration and Curves

In the US, we discuss Fed Chair nomination scenarios for the Treasury market, the upcoming Treasury refunding announcement, and the FOMC meeting. We stay neutral duration and in 2s30s flatteners. In the euro area, we maintain our carry-oriented trades like long 5s on 2s5s10s, and long 10y Bunds on ASW. In Japan, we stay neutral on duration as domestic real money investors buy on dips while foreign investors look to position short.

Sovereigns

In the euro area, we recommend being long 5y peripheral spread vs France and Germany. In the UK, we stick with 10s30s UKTi flatteners through the upcoming November syndication of the new August-48s, and we also explore the relative value of the new bond. In Japan, we look at the announced plan from life insurance companies regarding their asset allocations over the next six months.

Inflation

In the US, we stay neutral on long-term breakevens while continuing to suggest receiving in 1y1y CPI swaps. We focus on understanding value in long- and short-term breakevens. While both appear rich to slightly rich on valuation metrics, we believe that given other supportive factors for breakevens like oil prices, momentum, and equities, valuation arguments aren't compelling enough to short breakevens yet.

Money Markets

In the US, we maintain 1y1y FRAOIS tighteners vs 5y swap spread wideners. The trade carries better than 10y USTs and benefits from the AUM flow into MMFs and the FDIC surcharge change. In Japan, we suggest 2y JZ spread wideners as the spread is trading near the lows.

Derivatives

In the US, we position for more front-end curve moves in a limited downside "wedge" structure by selling a 1y payers vs a strip of 3-month caplets. This is long decorrelation. Also, we like to fade the pop in upper-right vol and payer skew by doing a 6m10y payer ladder, which has an upper breakeven rate of 2.95%.

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Duration and Curves

Global summary

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Our Bond Market Indicators, BMI(10), suggest short duration positions in the US, Japan, and Canada while suggesting a neutral position in the other markets we follow. Our BMI(2) models suggest a neutral stance across all the seven markets.

The most notable change in our BMI models comes in the move to overall short signals in US, Japan and Canada. While the average US signal was negative last week as well, it did not find any cross market support from other regions. Momentum towards higher yields in JGBs as well as better economic data in Japan has swung the JGB signal negative opening the door to be short USTs in our model.

In the US, we continue to suggest 2s30s curve flatteners, but remain neutral on duration as the market swings on prospects for tax reform and the next Fed chair. The Treasury market continues to trade with some optimism regarding tax reform, but we remain skeptical of passage this year. Given short positioning in the market, we stay netural on duration.

Exhibit 1: Morgan Stanley Bond Market Indicators - BMI(10)

	Vol Adj. Carry	Momentum	Equity Markets	Business Cycle	FX/Rates	Average	Overall
UST	-1.8 (-2.5)	-5.1 (-7.8)	0.0 (-1.6)	-6.3 (-6.2)	0.8 (1.1)	-2.5 (-3.4)	**-2.5 (0.0)**
DBR	5.4 (4.3)	4.7 (0.7)	-0.3 (-1.4)	-3.0 (0.7)	-4.6 (-7.4)	0.4 (-0.6)	**0.0 (0.0)**
UKT	4.2 (3.4)	-1.9 (-9.0)	-0.4 (0.2)	-2.2 (-2.2)	3.4 (0.7)	0.6 (-1.4)	**0.0 (0.0)**
JGB	0.2 (0.2)	-6.4 (-2.5)	-3.6 (-4.4)	-4.0 (-2.0)	-0.4 (2.8)	-2.8 (-1.2)	**-2.8 (0.0)**
ACGB	9.2 (8.5)	-3.1 (-5.8)	-1.1 (-2.0)	-0.9 (-2.9)	-2.1 (5.0)	0.4 (0.6)	**0.0 (0.0)**
NZGB	7.8 (7.0)	2.7 (-4.1)	-0.6 (-1.5)	-3.0 (-6.1)	6.3 (3.5)	2.6 (-0.2)	**0.0 (0.0)**
CAN	-5.1 (-5.9)	-1.6 (-7.8)	-2.2 (-3.0)	3.3 (3.3)	-5.2 (-7.0)	-2.2 (-4.1)	**-2.2 (0.0)**

Source: Morgan Stanley Research

Exhibit 2: Morgan Stanley Bond Market Indicators - BMI(2)

	Vol Adj. Carry	Momentum	Equity Markets	Business Cycle	FX/Rates	Average	Overall
UST	7.2 (5.1)	-9.6 (-9.7)	0.0 (-1.6)	-6.3 (-6.2)	1.5 (1.1)	-1.4 (-2.3)	**0.0 (0.0)**
DBR	-5.2 (-5.7)	4.7 (6.2)	-0.3 (-1.4)	-3.0 (0.7)	-2.4 (-3.3)	-1.2 (-0.7)	**0.0 (0.0)**
UKT	5.4 (4.4)	-5.4 (-9.2)	-0.4 (0.2)	-2.2 (-2.2)	2.9 (3.1)	0.1 (-0.7)	**0.0 (0.0)**
JGB	-4.9 (-5.4)	5.6 (8.4)	-3.6 (-4.4)	-4.0 (-2.0)	-4.0 (-2.3)	-2.2 (-1.1)	**0.0 (0.0)**
ACGB	7.9 (8.7)	-5.2 (-5.4)	-1.1 (-2.0)	-0.9 (-2.9)	-2.2 (1.0)	-0.3 (-0.1)	**0.0 (0.0)**
NZGB	4.5 (4.6)	2.5 (3.1)	-0.6 (-1.5)	-3.0 (-6.1)	4.1 (2.7)	1.5 (0.6)	**0.0 (0.0)**
CAN	0.2 (0.6)	-3.4 (-7.2)	-2.2 (-3.0)	3.3 (3.3)	-1.3 (-3.5)	-0.7 (-2.0)	**0.0 (0.0)**

Source: Morgan Stanley Research
Note: Positive # = long duration; Negative # = short duration, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.5 and cross-market restriction is not satisfied.

The FOMC meeting next week can do little to add to the 80% probability for a December hike already priced in. However, we do a see a risk that the Fed acknowledges the decline in inflation expectations in recent years.

In Europe, we continue to suggest being long 5s on the 2s5s10s butterfly, as well as being long 10y Bunds on asset swap into the ECB meeting. ECB Presdent Mario Draghi delivered a dovish message at the ECB meeting earlier this week, emphasizing the stock effect of ECB's bond buying program (and reinvestments), as well calling the program 'open ended'. This further paved the path for holding on to rolldown and carry trades.

In the UK, next week's MPC meeting is likely to see a rate hike by the BoE. While the 10-year point remains at risk following the 'two and done' pricing in the market, we refrain from going short 10s on a 5s10s30s butterfly trade. We continue to suggest 10s30s real yield curve flatteners given the rich level of 10-year real yields in the UK.

In Japan, we stay neutral on duration as the dip-buying demand from Japanese real money investors continues. With Abe securing victory in the elections last week, foreign investors have increased their bearish positions in the expectataion of policy moves form the BoJ, widening the JSCC-LCH basis. We do not expect any major changes at the upcoming BoJ meeting next week.

In New Zealand, The xBMI continues to produce active, long trading signal for NZD duration. Recent political developments, i.e. NZ First's choice to side with Labour/Greens, should be rates bullish. Unlike consensus, we don't necessarily see the curve steepening. While some of the new government's policies may be inflationary, others should be negative for potential growth. NZD rates remains the only DM rates market where intermediate rates trade well above central bank stated neutral rates. The fact that the xBMIs are signaling longs gives further conviction to this view. As such, we remain long NZD 5y5y.

In Australia, we continue to like long AU 5y5y vs US. While the xBMI is now largely neutral on AUD (except short against NZD, which we agree with), we note that the positive momentum for macro data appears to have stalled. Political noise may weaken the macro outlook further in the short-term, and we consequently remain long Australian duration cross-market.

Exhibit 3: Summary of G4 strategic interest rate views through 4Q17

4Q17	US	Euro area	Japan	UK
Monetary Policy	**Policy rate:** Dec-17 hike, four hikes in 2018. Balance sheet: Unwind announced in Sep-17 and started in Oct-17.	**QE:** ECB tapering announced in Oct-17, starting from Jan-18 and ending in mid-2018. Policy rate: The first 15bp depo rate hike to -0.25% in Sep-18.	**Long-term target:** Jan-Mar 2018 adjustment to the long-term interest rate target. Policy rate: First hike in the short-term policy rate in Jan-Mar 2019.	**Policy rate:** Risks to continued monetary policy stance tilted to hawkish in the near term because of above-target inflation and to dovish in the longer term on Brexit uncertainty.
Duration	**10y UST at 2.45%** Decreasing growth and economic data expectations together with a global demand for yield keeping a lid on the 10y despite the projected Fed hiking cycle.	**10y Bund at 0.60%** Yields edging higher on ECB extraordinary policy measure unwind and continued tight German funding markets because of QE-induced scarcity.	**10y JGB at 0.08%** Continued monetary policy to keep the 10y rangebound.	**10y Gilt at 1.00%** Political risks keeping domestic demand and growth subdued in the near term, balancing a MPC on hold and possibilities of fiscal expansion.
Curve	**2s10s at 0.95%** Hiking cycle bumping the front end to a flat FF-2y slope, more so than the increase in 10y yields, resulting in a bear flattening curve move.	**2s10s at 1.20%** Gradual policy normalization will maintain the curve slope, but measures to ease funding market scarcity tilt risks to steepening.	**2s10s at 0.26%** Steepening bias as our Economists are forecasting higher inflation and a BoJ preparing for policy tightening in 2018.	**2s10s at 0.90%** Scenarios of weaker or stronger economic performance affecting the long end would be accompanied by relevant MPC policy, keeping the curve slope around current levels.
Inflation	**Lower breakevens** Weaker realized inflation from structural and idiosyncratic factors and tighter Fed policy to keep inflation expectations low. Shorter dated breakevens could see upside form tax reforms.	**Inflation curve bull flattening** Medium-term gradual inflationary recovery leading to a bull flattening of the inflation term structure.	**Risk-reward in breakevens** Risk-reward in JGBi in an environment where markets are not pricing in our Economists' forecasted wage-driven inflation boost.	**Inflation curve bear steepening** An accommodative MPC allowing for continued strong, but decreasing, realized inflation, resulting in a bear steepening of the inflation term structure.
Spreads	**Long belly swap spreads** Increased floater issuance reduces the pressure on belly spreads. Deregulation propositions reducing the cost of balance sheet allows spreads to converge to fundamental fair value.	**BTP-Bund spread at 190bp** Mild widening in 2H17 triggered by an autumn start to ECB renormalization and Italy election uncertainty.	**USD/JPY xccy basis remaining tight,** but the risk of widening in 3Q global USD funding environment remain favorable, thereby less widening pressure in near term. However, short-end basis could widen in 3Q because of resumed T-bill issuance, Fed balance sheet unwind and Japanese investor foreign bond demand.	-
Volatility	**Neutral Gamma, bullish Vega** Subdued realized vol is incentivizing vol selling strategies, which is keeping gamma offered, whereas vega should be supported by less Formosa callable issuance.	**Tactical short in Gamma, bullish Vega** Realized volatility likely to stay low for the rest of the summer, whereas vega should be supported by continued strength in economic data and ECB tapering.	**JGB ASW flattening, lack of vol** JGB ASW flattening to remain until the BoJ shows a clear stance on "exit strategy"; vol to remain subdued in the current monetary policy environment.	**Buy 3m6m 10y calendar spread** We recommend to take advantage of the current flat term structure of volatility to express a bullish view on 10y tails, which looks cheap on different metrics.

Source: Morgan Stanley Research

United States

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It's the final countdown

Investors expect the announcement of the next Fed Chair by Friday, November 3. Media outlets have been publishing stories with unnamed sources that have suggested President Trump is no longer considering Gary Cohn, Chair Yellen, or Kevin Warsh. If true, the choice would seem to come down to John Taylor and Governor Powell. However, other sources suggest that President Trump changes his mind on the issue daily and that anyone could be his choice. In the same vein, latest news headlines suggest President Trump is leaning towards Jay Powell for the Fed chair.

Demand has been strong for a table summarizing our rates views given any choice for Fed Chair. We have covered in detail our views on Kevin Warsh (see Waiting for Reflation with Flatteners) and John Taylor (see Finally Some Fiscal Stimulus?). We have shied away from putting point estimates on how much yields would rise or fall in the various Fed Chair scenarios. The interplay of fiscal stimulus expectations and Fed Chair expectations has made understanding exactly what's in the price for each challenging.

In determining what's in the price today, the Fed Chair betting markets offer a place to start. But we see those market-implied probabilities as a less-than-perfect guide to what the largest institutional investors really believe and, more importantly, are hedging. Instead, we show in Exhibit 4 what we think investors will expect each policymaker to do with rates in the coming year, and how we think the curve will behave as a result.

Exhibit 4: Fed Chair scenarios and expected rates market reaction

Candidates	Taylor	Warsh	Powell	Yellen	Cohn
Academic?	Yes	No	No	Yes	No
Fed experience?	No	Yes	Yes	Yes	No
Eliminated by media?	No	Yes	No	Yes	Yes
Favored QE?	No	No*	Yes	Yes	N/A
Expected # of hikes in 2018?	4	3-4	3	3	2-3
Kneejerk rates move?	Higher	Higher	Lower	Lower	Lower
First week range					
Market-implied # of hikes in 2018	2.25-3.00	2.0-2.5	1.8-2.1	1.8-2.1	1.75-2.0
UST 2y	1.65-1.85%	1.55-1.75%	1.50-1.60%	1.50-1.60%	1.40-1.55%
UST 10y	2.50-2.70%	2.40-2.60%	2.30-2.40%	2.30-2.40%	2.25-2.35%
Kneejerk curve move					
UST 2s5s	Parallel	Parallel	Flatter	Flatter	Flatter
UST 2s10s	Parallel	Parallel	Flatter	Flatter	Flatter
UST 2s30s	Flatter	Flatter	Flatter	Flatter	Parallel
UST 5s30s	Flatter	Flatter	Parallel	Parallel	Steeper
Fade kneejerk move?					
In first week?	No	Yes	Yes	Yes	No
In first month?	Yes	Yes	Yes	Yes	Yes

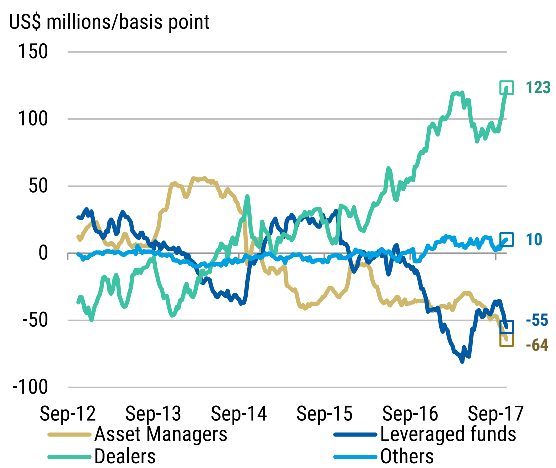
Source: Morgan Stanley Research; *Kevin Warsh initially supported QE to restore liquidity to the distressed MBS market.

We see a Taylor nomination delivering the biggest Treasury market sell-off, and a Cohn nomination delivering the biggest rally (though we have less conviction in the extent of the market reaction to a Cohn nomination). A Warsh nomination would also cause yields to rise, in all likelihood, but less so than a Taylor nomination. Both Yellen and Powell would deliver roughly equal-sized Treasury market rallies, in our view.

In terms of market positioning, investors are set up for a hawkish outcome, especially in Eurodollar futures. Both Exhibit 5 and Exhibit 6 show just how leveraged funds and asset managers are extremely short. If the fiscal stimulus story wasn't in play, this type of positioning would lead to a much sharper rally on a Powell, Yellen, or Cohn nomination than we have displayed in Exhibit 4.

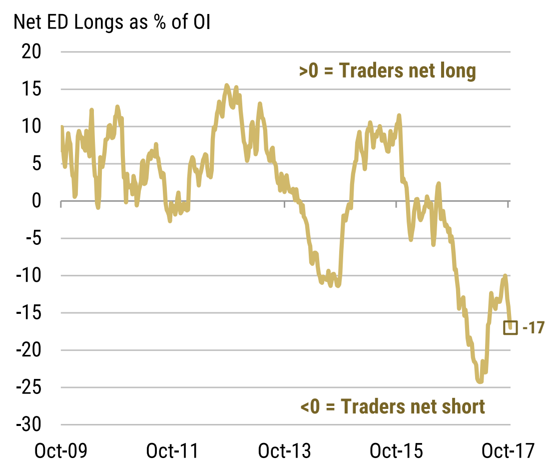
However, investors will likely fade any strong rally on a Powell, Yellen, or Cohn nomination over the month after the President makes the nomination. Over the first week, investors may find it more difficult to fade a Cohn nomination in part because his monetary policy views are not well known and in part because his nomination would come as quite a surprise to investors.

Exhibit 5: DV01 risk in Eurodollar futures across investor types over the past four years



Source: Morgan Stanley Research, CFTC

Exhibit 6: Leveraged fund risk in Eurodollar futures as a % of open interest over the past 10 years



Source: Morgan Stanley Research, CFTC, Bloomberg

What FOMC meeting?

Rates markets are not yet focused on the November 1 FOMC meeting statement, in part because investors do not expect meaningful changes in the language. Instead, investors are consumed by uncertainty over the next Fed Chair and the prospects for tax reform before year-end. In addition, most investors believe a December hike is a foregone conclusion. Indeed, the market-implied probability of a December hike is above 80% with a month-and-a-half worth of data to absorb.

In effect, investors have written off the chance that economic data would convince the Fed to do anything but hike. Investors didn't come to this conclusion on their own. The Fed has itself to blame for this now pervasive attitude. The following portion of the September 2017 FOMC statement could otherwise be written: "The Fed will dismiss any downturn in economic growth data over the coming months".

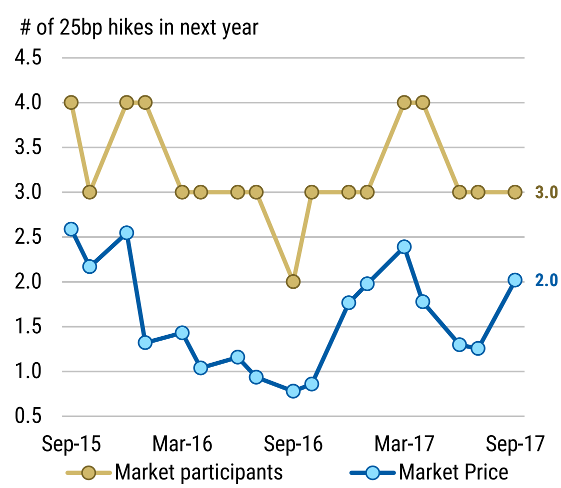
Storm-related disruptions and rebuilding will affect economic activity in the near term, but past experience suggests that the storms are unlikely to materially alter the course of the national economy over the medium term. Consequently, the Committee continues to expect that, with gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace, and labor market conditions will strengthen somewhat further.

Beyond the December hike, market prices also reflect a higher probability of hikes in 2018. On our pace of rate hikes metric (MSPOKE Index on Bloomberg), markets now price two 25bp hikes over the coming 12 months. Only two? That may seem low, especially considering that investors are convinced that the Fed will deliver one of them in just a month-and-a-half from now. But we draw a distinction between what investors expect, and what markets feel comfortable pricing.

Exhibit 7 shows a history of the market-implied pace of rate hikes over the 12-month period starting before each FOMC meeting in the past two years (in blue) vs. what market participants told the New York Fed in its pre-FOMC meeting surveys (yellow). The market-implied pace of rate hikes has been below what investors expected since the Fed lifted off to begin the hiking cycle. In this framework, there are two important questions to ask:

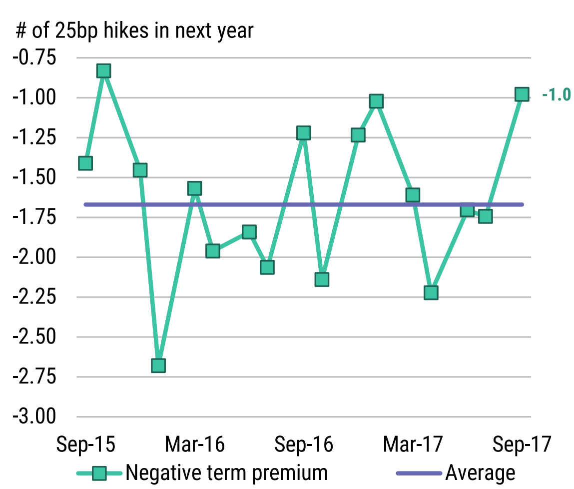
1. What pace of hikes will investors expect next?
2. Where is the market priced today vs. that future expectation?

Exhibit 7: New York Fed survey of market participants vs. market price: # of rate hikes in the year ahead



Source: Morgan Stanley Research, FRB New York

Exhibit 8: Difference between NY Fed survey of market participants and market price – negative term premium



Source: Morgan Stanley Research, FRB New York

Exhibit 8 shows the difference between what the market priced and what investors expected ahead of each FOMC meeting over the past two years. We call the difference a term premium, and it has been negative since the Fed lifted off. Today, the negative term premium in the market is worth about one 25bp rate hike, denoted as a -1.0 in Exhibit 8. Relative to the past, and relative to an investor base that expects three 25bp hikes over the coming year, the market is priced at the cheaper end of the range.

But what if investors come to expect four 25bp hikes in the coming year instead of three? That would place the negative term premium at -2.0 instead of -1.0, in which case the market would be looking slightly rich relative to the past. Recent uncertainty over the next Fed Chair, with investors speculating that the next one will be more hawkish than Chair Yellen, has played a role in the current market-implied pricing, which looks cheap relative to history.

What about risks to the inflation language?

With investors not expecting much in the way of language changes in the FOMC statement, investors could be caught off guard if there is any reference to inflation expectations having "slipped". Our US economists do not expect any such references, to be clear, but we see a risk that FOMC participants may want to back up their claim that they are watching inflation closely indeed. In fact, Janet Yellen already made the point that survey-based measures "hint that [inflation] expectations may have slipped a bit over the past two or three years." Here is the full quote from her September 26 speech on *Inflation, Uncertainty, and Monetary Policy*.

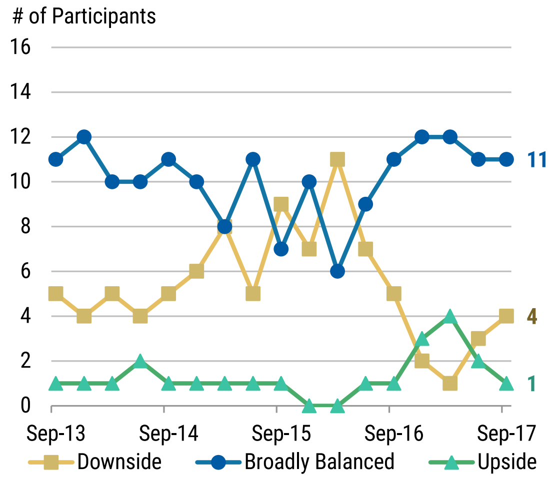
> *Households' longer-term expectations as reported in the University of Michigan Surveys of Consumers, the short-dashed blue line, have also been fairly stable overall since the late 1990s.19 That said, results from this survey, as well as a survey of consumers carried out by the Federal Reserve Bank of New York, do hint that expectations may have slipped a bit over the past two or three years. If so, stabilizing inflation at around 2 percent could prove to be more difficult than expected.*

As a result, we see a risk that the FOMC statement reads:

> *On a 12-month basis, overall inflation and the measure excluding food and energy prices have declined this year and are running below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations ~~are little changed, on balance~~ have slipped in recent years.*

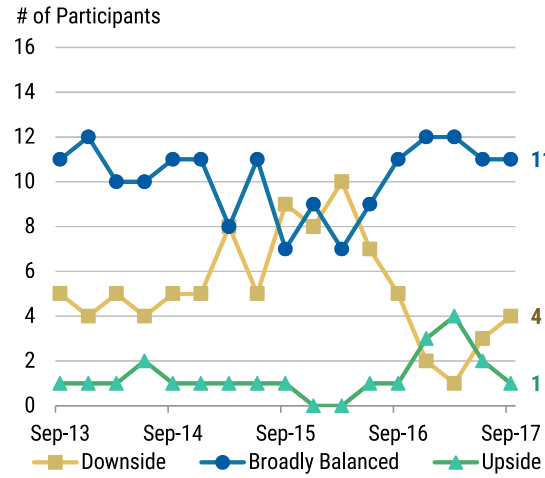
While not suggesting that the Fed may forgo a December hike, the language would suggest the Fed is indeed "monitoring inflation developments closely" and would almost certainly put more onus on inflation and inflation expectations to improve into the December FOMC meeting to give the Fed as much confidence in hiking as market prices currently imply. Bear in mind, at the September meeting, four participants saw downside risks to their headline and core inflation projections (Exhibit 9 and Exhibit 10). If realized inflation continues to disappoint and survey-based measures of inflation expectations continue to slip, more participants may express concern about downside risks.

Exhibit 9: Risk skew to headline PCE inflation projections



Source: Morgan Stanley Research, Federal Reserve

Exhibit 10: Risk skew to core PCE inflation projections



Source: Morgan Stanley Research, Federal Reserve

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What to watch for in the November Refunding Statement

The Treasury's quarterly refunding statement is expected at 8:30 AM on Wednesday, November 1. The main points we will be looking for are as follows:

1. Is there any increase in coupon Treasury auction sizes?
2. How does the Treasury plan to raise funds to meet any potential increase in the budget deficit and compensate for the Fed's balance sheet normalization?
3. Any talk about potential ultra-long-term coupon issuance.

We look at the details of the August refunding statement to help address those points. In short, **we do not expect the Treasury to announce an increase in coupon issuance at the November refunding statement.**

The TBAC had recommended in August that the Treasury increase coupon issuance across all tenors as well increase net T-bill issuance. Its suggested start date was the November 2017 or the February 2018 refunding statements. However, we do not expect the Treasury to announce an increase in November for the following reasons:

- The TBAC recommendation was based on a primary dealer survey of expectations for the fiscal deficit in 2018 and 2019. But the Treasury's Office of Management and Budget deficit projections are much lower. For example, as of the latest projections the OMB is penciling in $640bn of borrowing needs in 2018, while the PD survey was calling for $880bn of borrowing needs. So we do not think that it would rush into raising auction sizes until getting more clarity on tax reform.

- December 8 is the next debt ceiling deadline when the Treasury has to reduce its cash balance to $70bn. It is unlikely that the Treasury would be encouraged to increase coupon issuance ahead of that date, since increasing T-bill issuance as opposed to coupons gives the Treasury more flexibility to manage its cash balance ahead of the deadline.

- Fed balance sheet UST rundown in 2018 totals $230bn. However, this should mostly be offset by a $182bn drop in redemptions of privately held USTs in 2018 relative to 2017. As a result, an increase in coupon issuance is only necessary if and when there is an increase in the deficit. The TBAC mentioned this point in its presentation to the Treasury in August, thus we think the focus for coupon issuance will be on the deficit projections rather than the SOMA portfolio.

Indeed, the TBAC noted in its August presentation to the Treasury that:

> *Given that higher borrowing needs are the primary driver for higher issuance needs over the medium term and not the change in the Fed's reinvestment policy per se, the Treasury should carefully consider fiscal policies as it makes decisions about various debt management scenarios.*

We covered our issuance projections for 2018 and 2019 in The Hawks Went 2 for 4. Our estimate is for a $95bn increase in the budget deficit in CY 2018. However, we do not expect that deficit to start hitting the budget before 1Q18. Given the uncertainty about what the final number would be, we do not think there will be an increase in coupon issuance until at least February 2018.

Ultra-long issuance?

The possibility of ultra-long issuance was not discussed in the August refunding statement. It is unlikely that it will be discussed in the upcoming TBAC meeting, given that there were no questions on ultra-long issuance in the latest primary dealer survey.

However, it is always a risk that the discussion would come up in the minutes or the presentations from the upcoming meeting, which would put upward pressure on 30y UST yields. In any case, we do not expect the Treasury to end up issuing ultra-long bonds for reasons that we discussed in Bring Back the Reagan-Era 20-year Treasury Bond.

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Well anticipated, yet surprised by the market

President Draghi delivered a very well-flagged ECB meeting yesterday, in the way that the policy recalibration was in line with our expectation, i.e.:

- Monthly purchase to scale back from €60bn to €30bn/mth from Jan-18 and the program is extended to Sep-18, with an open-ended timeline for potential further extension
- Non-PSPP, or namely CSPP purchase will remain sizable, implying reduction will be primarily through the PSPP program
- Emphasis on reinvestment flow and hence the stock effect of the QE program over the flow effect

Despite the well-telegraphed ECB member comments and media reports prior to the meeting that guided the market towards such an outcome, the price action post the event suggests the market still was surprised to the dovish side out of the meeting, i.e. Bunds rallied ~6bp led by the belly post meeting and peripheral spread tightened 3-4bp in the rally.

The price action is somewhat driven by the de-risking by markets in the days prior to the meeting, where a final confirmation by President Draghi reassured the markets for 'lower for longer', a rather "sell-the-rumour, buy-the-fact" price action.

The details

Stock over flow: President Draghi repeatedly emphasized the stock effect of QE versus the flow effect in the press conference. We agree on that front where we showed in our term premium analysis that the stock effect of QE, ECB and global QE matters much more than the flow effect (Exhibit 11).

We believe this is particularly true for Eurozone, or namely Germany, as German Bunds represent the genuine risk-free duration product in the Eurozone, which represents 17%, or €1.13trn out of the €6.6trn of the EGB markets. Towards the end of the program, close to €400bn, or 33% of the German Bund market will likely be owned by the ECB, where duration and collateral shortage should persist for Bunds given the ongoing reinvestment.

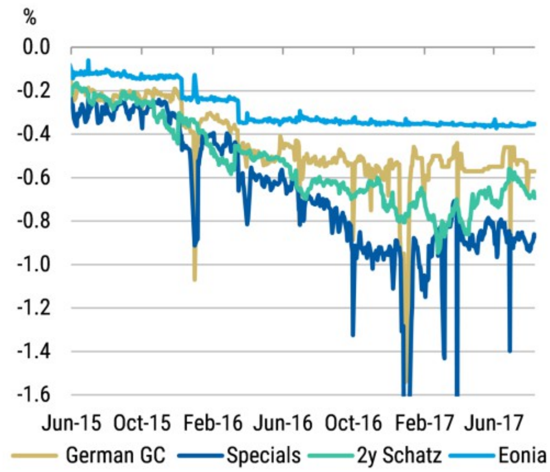
This will keep the German repo rate permanently lower than Eonia (see Exhibit 11), if the excess liquidity is being retained in the system after the QE program ends. This in turn should keep Schatz yield well anchored even when the ECB starts hiking rates, supporting Bunds from a carry perspective (and also asset swap spreads) for longer.

Exhibit 11: Sensitivity of 5y, 10y and 20y Bund term premium to each factor

	5y	10y	20y
Inflation expectation	96	160	204
ECB QE Stock Effect *	-18	-28	-53
G2 QE Stock Effect	-43	-53	-34
Weekly ECB QE Flow Effect **	1.5	2.8	4.1

Notes: * Based on total PSPP holding as % of German government bond markets. ** Based on weekly PSPP purchase of Germany vs weekly German gross issuance
Source: ECB, Morgan Stanley Research

Exhibit 12: Germany Repo Rate vs Eonia and Schatz yield



Source: Morgan Stanley Research

Open-ended program: As we expected, the ECB kept an 'open ended' approach to the program, i.e. the announced scaling back in Jan-Sep 18, but it is not yet an eventual taper, rather, it is more easing at a slower pace for longer. The question has been frequently asked at the press conference whether the scarcity issue in German bunds will be an impediment against the 'open ended' nature of the program.

By our estimate, further extension beyond Sep-19 is still possible, as long as the reduction is mainly through the PSPP program, and within which German Bund purchases will be kept to a minimum (see Exhibit 13). This will allow the ECB to extend the program once more, at a much lower pace and for a shorter period beyond Sep-18. The eventual taper announcement will likely come in 1H 18, as we see it.

CSPP purchase to remain sizable: Regarding the composition of the program when the size will be scaled down to €30bn/mth in Jan-18, President Draghi stated:

> *We didn't discuss really the composition. The only thing that I can say about that is we will continue buying sizable quantities of corporate bonds in the program and the you get the rest.*

This is again in line with our view that the reduction in size will mainly come from the PSPP program whilst the proportion of the non-PSPP vs PSPP purchase will likely step up from the previous split of around 15% vs 85% (see Exhibit 14). We expect that in order to keep the optionality for the program running longer, the purchase in PSPP, German Bunds in particular, will be kept minimal.

We estimated two scenarios of purchase in each asset class and each country in a pro-rata PSPP vs non-PSPP reduction, versus our base case of heavier reduction in PSPP whilst the non-PSPP purchase remains fairly sizable in Exhibit 15. In our base case, i.e. option 2, where the total program is halved from €60bn to €30bn, non-PSPP purchase will only be scaled back from the current range of ~€10bn to €8bn, whilst PSPP declines to €22bnto from €50bn currently.

Exhibit 13: Months left for Bund purchase under different APP monthly sizes in 2018

	Monthly purchase size					
Total APP	**€ 60.0**	**€ 50.0**	**€ 40.0**	**€ 30.0**	**€ 20.0**	**€ 10.0**
Non-PSPP purchase	**€ 10.0**	**€ 10.0**	**€ 10.0**	**€ 8.0**	**€ 6.0**	**€ 4.0**
German Bund purchase	**€ 8.0**	**€ 6.4**	**€ 4.8**	**€ 3.5**	**€ 2.2**	**€ 1.0**
			No. of Months left to purchase			
Jan-18	4.9	6.4	8.8	**12.4**	20.1	48.2
Feb-18	3.9	5.4	7.8	**11.4**	19.1	47.2
Mar-18	2.9	4.4	6.8	**10.4**	18.1	46.2
Apr-18	1.9	3.4	5.8	**9.4**	17.1	45.2
May-18	0.9	2.4	4.8	**8.4**	16.1	44.2
Jun-18	-	1.4	3.8	**7.4**	15.1	43.2
Jul-18	-	0.4	2.8	**6.4**	14.1	42.2
Aug-18	-	-	1.8	**5.4**	13.1	41.2
Sep-18	-	-	0.8	**4.4**	12.1	40.2
Oct-18	-	-	-	**3.4**	11.1	39.2
Nov-18	-	-	-	**2.4**	10.1	38.2
Dec-18	-	-	-	**1.4**	9.1	37.2

Source: ECB, Morgan Stanley Research

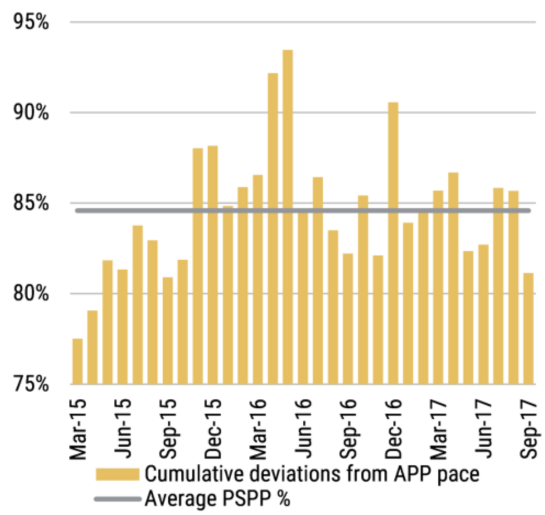
Emphasis on reinvestment, and the flexibility: the emphasis on reinvestment which supports the stock effect of the QE is also in line with our expectation, as it accomplishes the flow effect given the sizable reinvestment flow from next year onwards. In our reinvestment estimate (see QE reinvestment matters), we estimate that PSPP sovereign bond reinvestment could be as much as €101bn next year, of which €39bn will likely be in Germany.

This means that of the monthly purchase in Germany, which we estimate to be around €5bn (see Exhibit 15), 70% or €3.5bn will likely be in Bunds; the reinvestment flow adds another ~€3.25bn/mth to sum to ~€7bn of monthly purchase. The details of reinvestment size in each asset class in the next 12 months will be published by the ECB on Nov 6th.

The flexibility of reinvestment was also mentioned in the press conference, where it was noted that proceeds from the government bond redemption will be reinvested in the same country; however, reinvestment could be delayed by up to two months, depending on the liquidity of the markets. The maturity sector of the reinvestment will not likely be published, which means the eurosystem would have more flexibility to impact the term premium on a different part of the curve.

The CSPP/ABSPP/CSPP reinvestment may also have more flexibility where redemption from ABSPP/CBSPP could potentially go back into CSPP, though likely within its own jurisdiction.

Exhibit 14: Share of PSPP within the APP program



Source: ECB, Morgan Staley Research

Exhibit 15: Estimated monthly purchase in each asset class/sovereigns under different reduction scenarios between PSPP and private sector purchase

EUR Bn	Average monthly purchase since Mar-17	%	Option 1: Pro-Rata	Option 2: Reduction Mainly Through PSPP
Austria	1.5	2.9%	0.7	0.6
Belgium	1.8	3.7%	0.9	0.8
Germany	11.7	23.1%	5.9	5.1
Spain	6.1	12.0%	3.1	2.6
Finland	0.6	1.1%	0.3	0.2
France	10.5	20.9%	5.3	4.6
Ireland	0.5	1.1%	0.3	0.2
Italy	9.2	18.2%	4.6	4.0
Holland	2.6	5.2%	1.3	1.1
Portugal	0.5	1.0%	0.2	0.2
Others	0.5	0.9%	0.2	0.2
Supras	5.1	10.1%	2.6	2.2
PSPP	**50.5**	**84.0%**	**25.5**	**22.0**
Non-PSPP	**9.6**	**16.0%**	**4.5**	**8.0**
Total APP	**60.1**	**0.0%**	**30.0**	**30.0**

Source: ECB, Morgan Staley Research

Market implications:

ECB staying behind the curve: Despite the monetary policy recalibration, we contend that the ECB is well behind the curve on monetary policy renormalisation, versus the eurozone's growth outlook and other G3 central banks.

Per President Draghi, the growth momentum we've had so far, is broad-based and domestically driven, but the "*downside risk relates to global factors and development in foreign exchange markets.*" In our view, this commentary demonstrates the ECB's cautious view towards renormalisation (due to concerns about the euro strengthening) and hence, inflation.

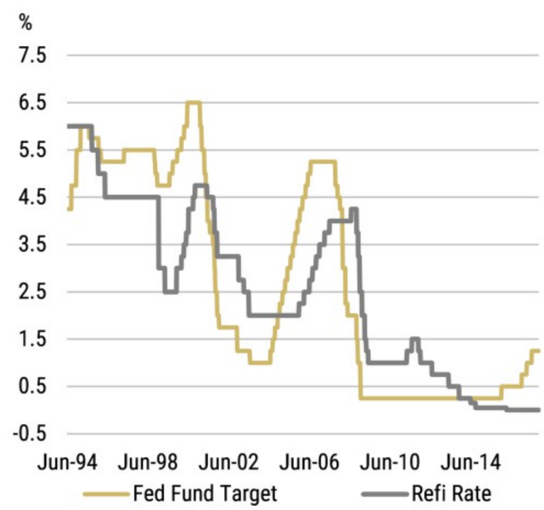
A decoupling ECB: President Draghi also acknowledged that the ECB can stay way behind the Fed.

> *The monetary policies of different jurisdictions reflect the different positions they are in achieving their objectives and the different positions the economies have in the business cycle. As such, the US recovery is way more advanced than ours. And the inflation developments, because we are concerned about price stability, are way behind. That justifies a difference in monetary policy stance.*

In our view, this is an explicit acknowledgement that the ECB plans to decouple from other major DM central banks for longer, despite a more 'correlated' move back in late June, when President Draghi delivered a hawkish message at Sintra following the BoC, BoE, and the Fed, where an re-coupling of DM central policy took place.

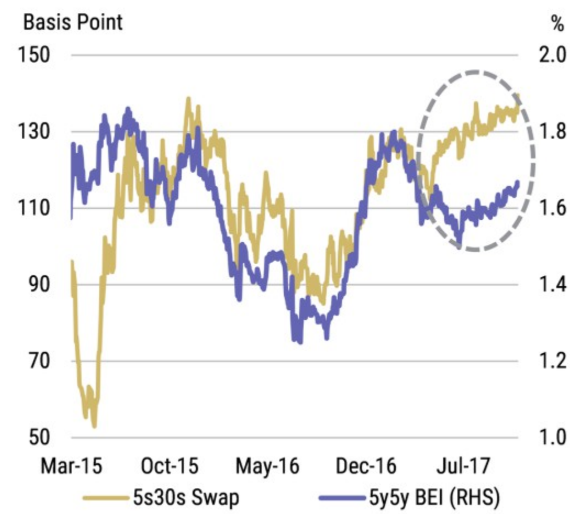
Since then, the ECB has reversed course and has reaffirmed its pro-long decoupling from the Fed. Exhibit 16 shows that Germany/Eurozone historically have lagged the Fed by about 12 months. Currently, we are already two years behind; thus, this gap will lengthen further, in our view.

Exhibit 16: Fed Fund rate vs ECB/Buba Rate



Source: Bloomberg, Morgan Stanley Research

Exhibit 17: EUR 5s30s swap curve vs 5y5y inflation



Source: Bloomberg, Morgan Stanley Research

Carry for longer: A strong growth outlook coupled with an ongoing dovish ECB means that revival in the term premium can only be expressed on the back-end of the curve, as the ECB continue to anchor the term premium as well as rate expectation and hence anchor the belly, 5-10yr part of the curve. Given the carry structure which still favours the belly of the Bund curve, the 5s30s curve can continue to remain steep for longer, and more than justify the inflation fundamental (see Exhibit 17). We therefore keep our 5s30s BTP steepener to approximate the core curve steepness with a better carry profile of 9bp/quarter (see Euro area - Long peripheral vs core).

Moreover, 5s should continue to outperform on the 2s5s10s fly as the 'end of easing' is being delayed further, supporting the 5y as rate expectation will remain well anchored. The trade is also supported from a carry perspective. The ongoing duration and collateral shortage should keep asset swap spreads wider for longer. Furthermore, a dovish ECB in a synchronised global growth recovery also means that Bunds should be better protected in a global rates sell-off, at the risk of progress on US tax reform and/or Fed chair replacement.

Trade idea: Long OBL Jul-22 vs BKO Sep-19 and DBR Aug-27 on 2s5s10s fly at -32bp with 7bp carry and roll/quarter

Trade idea: Long DBR Aug-26 vs swap at 50bp

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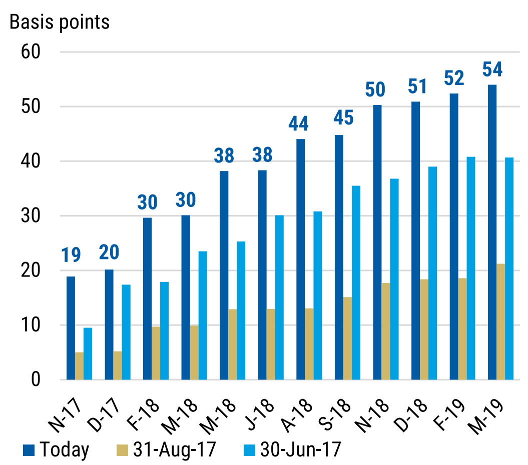
What is priced in by markets?

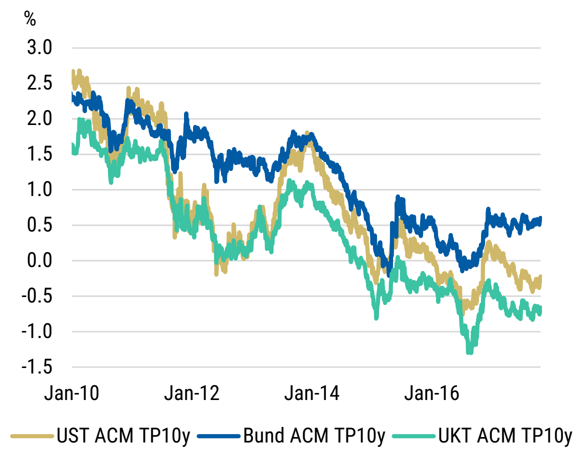
After the stronger than expected GDP print on October 25, markets were close to pricing in a full hike by the November MPC. Since then, the market has pulled back, driven by a dovish ECB, and is now only pricing in just under an 80% chance of a hike at the November meeting (Exhibit 18). Today's market pricing is more in line with our economists' call for a more dovish hike with the board split 6-3 after the speeches by Carney, Ramsden and Tenreyro, which is a slightly more dovish outlook than we had earlier in October (see: Hike Hike Pause).

Exhibit 18: SONIA curve implied cumulative rate hikes by meeting dates



Source: Morgan Stanley Research, Bloomberg

Exhibit 19: Fed ACM term premium model



Source: Morgan Stanley Research, Fed, Bloomberg

Risks are skewed to the downside: Although our base case is still for two hikes and a pause thereafter, the market now fully prices in two hikes by November 2018. Unless the MPC delivers more hawkish rhetoric in the coming months, the risks could be more skewed towards a pullback from the current pricing of two full rate hikes, given the not-insignificant risk of data deterioration in the coming months as Brexit negotiations drag on.

Gilt curve pricing: Gilt market moves in recent months, particularly after the MPC's hawkish turn, have been fairly parallel across the curve, with 2s10s and 10s30s staying range-bound. However, 5s10s has flattened the most as market expectations of more rate hikes have caused 5y to underperform on the curve.

However, if it is two hikes and done as per our economists' call, or if data does deteriorate into 2018 and the first hike is belatedly taken by the market as a policy mistake, 5y has the potential to outperform on the curve given its recent cheapening.

At the same time, the gilts 10s30s curve has remained utterly flat for the whole year, refusing to steepen on the back of increased expectations of a hiking cycle. It is likely to stay flat or flatten further into year-end, driven by the seasonality of pension-hedging flows.

How to position?
This makes UK 10y potentially vulnerable on the curve. On a cross-country basis, UK does look rich given how low term premia are compared to the US and Germany (Exhibit 19). However, we think that is justified by the ongoing Brexit uncertainty, despite a hawkish MPC in the near term. Looking at our BMI, it does suggest that one should be relatively neutral/long the UK cross-market, versus the US mainly, led by the strong vol-adjusted carry and the FX component.

We therefore refrain from putting on a UK 5s10s30s fly trade yet ahead of the November MPC, but will monitor any rhetoric towards a dovish hike or any turn in the data that would point to a policy mistake after a November hike being delivered. Furthermore, we expect Fed policy and the announcement of the new Fed chair to drive global rates markets next week. Carney himself noted that 75% of UK term premia can be explained by US term premia. We do, however, stick with 10s30s flatteners in real yield space (see United Kingdom - Holding flatteners through the syndication) as we think 10y real yields are particularly rich, even versus nominal yields, while the long end will continue to outperform on the curve after the November linker syndication.

Japan

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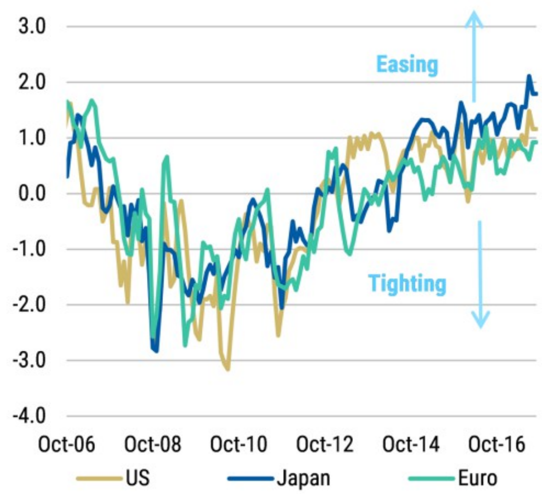
Expectations for BoJ early policy tightening remain popular among overseas investors
The foreign community continues to expect an early adjustment of BoJ monetary policy.The initial catalyst appeared to be a belief that Prime Minister Shinzo Abe's Liberal Democratic Party (LDP) would struggle in the October 22 Lower House election, thereby putting Abe on shaky ground and leaving him with less say regarding the reappointment or replacement of BoJ Governor Haruhiko Kuroda (whose current term will end next April).

However, these expectations appeared to persist even after opinion polls started pointing to a comfortable LDP victory. We attribute this to the fact that the Fed and ECB have shifted in the tightening direction despite the continued sluggishness of inflation, seemingly judging that global monetary conditions have grown extremely accommodative(see Exhibit 20).

In other words, many may believe that the BoJ is set to go down the same "normalization" road even with inflation still well short of its +2% target level. Such speculation appears to have been fueled by comments in a recent speech by BoJ Deputy Governor Hiroshi Nakaso as well as reports suggesting that the Abe administration is preparing to declare a "victory" over deflation (see this).

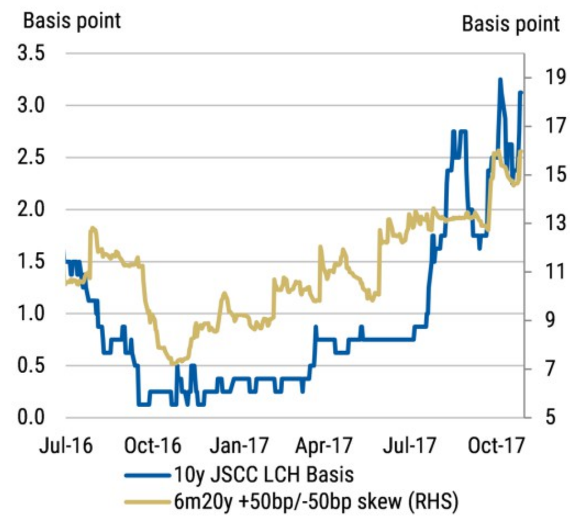
Opinion is seemingly divided as to just what the BoJ might do, with (predominantly foreign-driven) action in JPY rates derivatives markets suggesting that perceived options include a hike in the 10y JGB yield target level, replacement of that target with one couched in terms of the 5y yield, and abolition of the BoJ's negative interest rate policy. Such views have caused the 10y JSCC-LCH basis to widen to a near historical high, long-end payer skew to increase, and short-end OIS rates to rise (see Exhibit 21 and Money Markets section).

Exhibit 20: MS financial condition index by regions



Source: Morgan Stanley Research

Exhibit 21: 10y JSCC-LCH basis and the long-end payer skew



Source: Morgan Stanley Research

Sep CPI number will not likely change their activity

The much awaited CPI print came out in-line with expectations for nationwide core (ex fresh food) and BoJ core (ex fresh and energy), +0.7%Y and +0.2%Y respectively, which is flat from the previous month. Our economists forecast that the base effects of energy from September onwards should fade from here and that core CPI will be range bound for the time being(see Japan Economics: CPI/Update on Deflation Exit and Shunto).

We think that foreign investor sentiment should not see any significant changes because of the data. However, as contributions from the energy component are expected to come off, if there is no improvement seen in underlying inflation, there is a risk of core CPI seeing a decline. If that scenario comes into play, we may see an unwind of positions which were counting on an early policy adjustment by the BoJ.

Domestic players looking to buy on price dips

Meanwhile, domestic players are seemingly keen to buy into any temporary weakness, with some reportedly taking advantage of recent rises in US and European rates—and upward pressure even on JPY rates (in overnight trading)—amid speculation over the reappointment or replacement of Fed Chair Janet Yellen, US tax reforms, and the ECB's QE tapering intentions for 1Q 2018 onwards.

Our impression is that most domestic investors—unlike foreigners—expect the BoJ to persist with its current monetary policy framework. The difference of view on the BoJ monetary policy outlook have been reflected in the widening of the long-end ASW (see Exhibit 22). We expect this trend to remain intact as far as the financial conditions remain extremely accommodative.

What BoJ meeting?

Our economists expect the BoJ to leave monetary policy on hold next Tuesday (see BoJ Watch: October MPM/Outlook Report Preview) , believing that it would be premature to take any action with underlying inflation still running at around +0.2% (well short of the central bank's +2% target level).

However, recent comments by BoJ Deputy Governor Hiroshi Nakaso (pointing to a willingness to adjust the shape of the yield curve), rising stock prices, and the weakening yen could conceivably see the central bank opt for a subtle change of tone vis-à-vis its monetary easing. If Kuroda were to hint that some sort of policy adjustment might be being considered, then we would expect to see further positioning—particularly in the swaps market—with the possibility of such action in mind.

How to position

Real money investors look to have been exploiting recent cheapness in the super-long JGB sector, but as discussed in this week's Sovereigns section, most life insurers have indicated that they intend to reduce or at best maintain their JGB exposure in 2H FY2017, instead favoring FX-unhedged foreign bond positions and overseas credit products.

That said, as shown in Sovereigns section, we see potential for super-long JGBs to attract at least some interest due to the diminished attractiveness of US mortgage securities/US Treasuries on a JPY-hedged basis. Lifers may also be looking to lengthen portfolio duration towards the end of the fiscal year as part of efforts to reduce ALM mismatches. The 40y sector has been a big outperformer of late, (but remains cheap to shorter maturities by historical standards (see Exhibit 23), for which reason we continue to favor a 20s40s flattener (see Trade Ideas).

Exhibit 22: 20y and 30y ASW (LCH-cleared)

Source: Morgan Stanley Research

Exhibit 23: JGB 20s40s spread

Source: Morgan Stanley Research

Sovereigns

Euro area

The ECB meeting this week reassured the markets of a ongoing dovish ECB that provided further easing, albeit at a lower pace of purchases, which ultimately will support the carry trades and sovereign spreads for longer. Given political developments from Italy this week, despite the ongoing uncertainty from Catalonia, we think that Catalonia remains a localised risk whilst the Italian risk diminishing implies more broad de-risking of eurozone sovereigns. We recommend to be long 5y peripheral spread vs France and Germany

United Kingdom

We stick with UKTi 10s30s flatteners through the November syndication of the new Aug-48 linkers, as we expect the supply outlook to favour the long-end in the UK. We assess the fair value of the bond by interpolating between the Libor z-spreads of surrounding bonds, both on maturity and on modified duration. We also approach relative value by looking at the seasonally adjusted forward yield curve. We expect the bond to trade slightly rich to surrounding maturities, given the inverted shape of the curve and the fact that, thanks to its low coupon, its duration is more similar to that of the Mar-50s.

Japan

Major Japanese life insurance companies have announced their 2H FY2017 (October 2017 - March 2018) investment plan. Overall, their asset class forecast ranges indicate a risk-on bias. In a continuation from last FY half, Japan's major life insurers are looking to either maintain or reduce their JGB exposure while increasing their allocations of foreign bonds and credit assets. In addition, the overall trend is an expansion of their non-FX hedged foreign bond portfolio given the continued increase in the FX hedging cost of dollar assets as the Fed continues to hike rates.

Exhibit 24: Morgan Stanley Bond Market Indicators - xBMIs

	DBR/UKT	DBR/JGB	DBR/UST	UKT/JGB	UKT/UST	JGB/UST
Overall	**0.0 (0.0)**	**0.0 (0.0)**	**0.0 (0.0)**	**3.1 (0.0)**	**0.0 (0.0)**	**0.0 (2.5)**
Average xBMI	-4.4 (-4.2)	-0.5 (-3.0)	-0.3 (-0.7)	3.1 (0.2)	2.0 (3.4)	-0.8 (2.5)
Combined BMI differential	0.0 (0.0)	2.8 (0.0)	2.5 (3.4)	2.8 (0.0)	2.5 (3.4)	-0.4 (3.4)
FX/Rates	-8.8 (-8.4)	-3.8 (-5.9)	-3.0 (-4.9)	3.3 (0.5)	1.5 (3.5)	-1.2 (1.6)
	ACGB/NZGB	**ACGB/CAN**	**ACGB/UST**	**NZGB/CAN**	**NZGB/UST**	**CAN/UST**
Overall	**-2.4 (0.0)**	**0.0 (3.9)**	**0.0 (3.1)**	**4.5 (5.1)**	**2.6 (0.0)**	**0.0 (0.0)**
Average xBMI	-2.4 (0)	1.1 (3.9)	0.1 (3.1)	4.5 (5.1)	0.6 (1.8)	-0.2 (-1.2)
Combined BMI differential	-2.6 (0.0)	2.2 (4.1)	2.5 (3.4)	4.8 (4.1)	5.1 (3.4)	0.3 (-0.7)
FX/Rates	-2.2 (0)	0 (3.8)	-2.2 (2.7)	4.1 (6.1)	-3.9 (0.1)	-0.7 (-1.8)

Source: Morgan Stanley Research
Note: Positive # = long cross market spreads; Negative # = short cross market spread, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -15 and +15, Signal is calculated as the average of Combined BMI differential and the FX component. Signal is set to zero if abs(Signal)<=2 and/or its has a sign different from the Combined BMI differential

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UPDATE

Euro area - Long peripheral vs core

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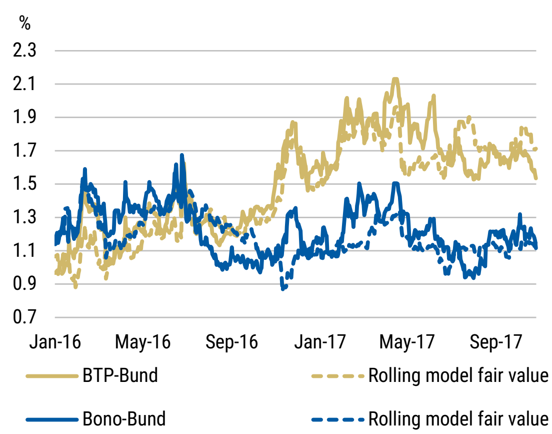
ECB in support of spreads

The ECB meeting this week reassured the markets of an ongoing dovish ECB that provided further easing, albeit at a lower pace of purchases, which ultimately will support the carry trades and sovereign spreads for longer. Furthermore, for the reminder of the year, sovereign issuance outlook will be slim (see Lower political risk), with contained realized volatility that supports carry, solid economic growth in the periphery and a dovish ECB which are all sources of support for the for riskier sovereigns.

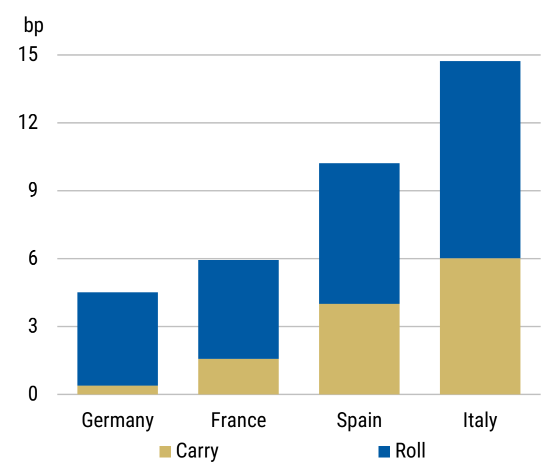
This has been reflected in the price action post the ECB press conference, and now our fair value model suggests both BTP and Bono spreads vs Bunds are skewed towards rich valuation (see Exhibit 25). However, given political developments from Italy this week, despite the ongoing uncertainty from Catalonia, we think that Catalonia remains a localised risk whilst the Italian risk diminishing implies more broad de-risking of eurozone sovereigns, and with the ECB's support for longer we think a carry and spread tightener trade can continue to perform into the year end (see Exhibit 26)

Exhibit 25: 10y Spain and Italy vs Germany: actual vs fair value



Source: Morgan Stanley Research, Bloomberg

Exhibit 26: 5y EGB carry and roll on the curve



Source: Morgan Stanley Research, Bloomberg
Note: Carry is based on GC rate of -40bp

Political risk in Italy no longer material

In 2018 the only major political event in the euro area is the Italian election, which is likely to take place between March 2018 (as some media have suggested) and May 20, 2018, the deadline for the vote.

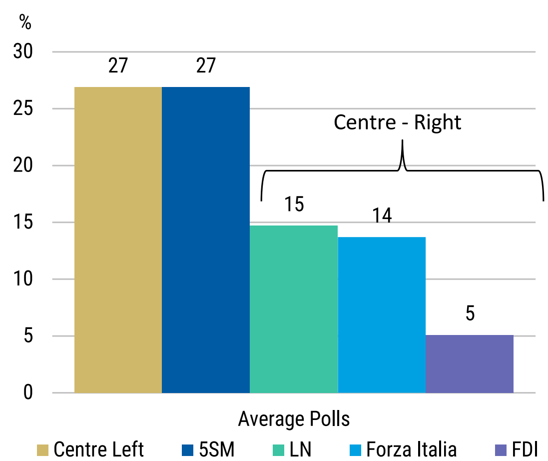
The newly approved electoral law, the “Rosatellum 2.0”, a combination of a first past the post and proportional system, together with the most recent polls (see Exhibit 27) showing the three main political forces head-to-head, has made the risk of the populist parties winning the election no longer material because:

- Election risk in Italy is not binary as it was in France (Macron vs Le Pen) or as in the Brexit Referendum (in vs out).

- The new law encourages the pro-reform parties, i.e. the centre-left and the centre-right to eventually form a coalition as these are the most likely to find some common ground.

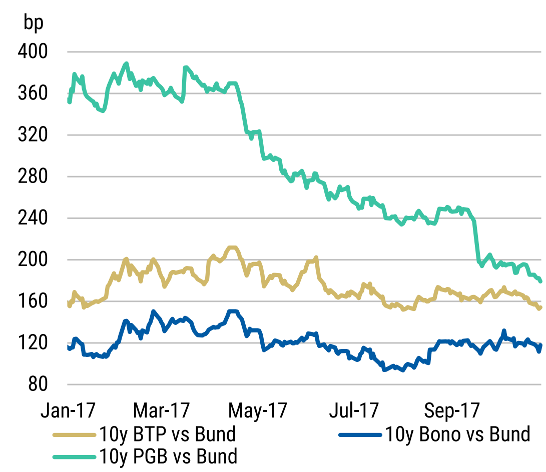
While we think that focus on the Italian elections is likely to remain moderate for the rest of 2017, uncertainty is likely to resume on the Italian credit spread as we approach the pre-election period, especially if the polls begin to show increased support for the 5SM. However, we think that this will weigh on Italy specifically as the new electoral law eliminates the potential for systemic risk and contagion to other peripherals.

Exhibit 27: Average of recent electoral polls



Source: Morgan Stanley Research, Termometro Politico

Exhibit 28: 10y Italy, Spain and France vs Bund



Source: Morgan Stanley Research, Bloomberg

Catalonia real independence unlikely but uncertainty to stay

On Friday the Catalan parliament approved a unilateral declaration of independence. However, as our economist discussed in a recent note (see The Impact of Catalonia) independence in Catalonia as a final outcome is unlikely because of internal and external hurdles making it clear that Catalonia will go to the polls in the near term.

While the emergence of a regional government more willing to reach a compromise with the central government remains a possibility, the latest polls suggest that this scenario may not occur and the situation may well remain uncertain for longer.

In these respects, as our economist discussed in the note, prolonged uncertainty can pose some risks to Spain's growth and also the risk of an early general election. In our view, this was reflected in recent price action and in current valuations, as the recent divergence between BPT/PGB and Bono shows (see Exhibit 28).

What the eBMI is telling us?

Our eBMI (see Exhibit 29) continues to remain long periphery and semi-core vs. core but now suggests overweighting Italian vs. French sovereigns. The main factor behind its bullish stance on riskier sovereigns remains carry, which is boosted by historically low realized volatility.

Interestingly, the business cycle surprise is increasingly more supportive for BTPs and OATs, as it reflects a series of better-than-expected economic data. Despite a solid tightening trend keeping the long term momentum component bullish, the factor moderated for BTPs as the short term mean reversion component suggests a tactical reversal in the price action.

The risky asset factor remains close to neutral territory as the OATs and BTPs richness vs credit is counterbalanced by the stronger FTSE MIB and CAC 40 vs DAX in the past 4 months. Finally, supply this week has been ~2.4bn in Germany, ~0bn in France and ~4.25bn in Italy, explaining the factor sign.

Exhibit 29: Morgan Stanley Euro Sovereign Bond Market Indicators (eBMI)

	Business Cycle Surprises	Momentum	Vol. Adj. Carry	Supply	Risky Assets	Overall
Periphery vs. Core	2.9 (1.4)	-0.1 (0.6)	10.0 (10.0)	3.1 (-7.9)	0 (0.1)	**3.2 (0.8)**
Semi-Core vs. Core	1.2 (-1.4)	5.9 (5.8)	5.5 (5.9)	-5.4 (7.7)	1.0 (-1.3)	**1.6 (3.4)**
Periphery vs. Semi-Core	0.9 (1.4)	-3.0 (-2.6)	2.2 (2.0)	4.2 (-7.8)	-0.5 (0.7)	**1.5 (-2.5)**

Source: Morgan Stanley Research
Note: Positive # = long periphery or semi-core vs. core, long periphery vs. semi-core; Negative # = short periphery or semi-core vs. core, short periphery vs. semi-core; (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10.

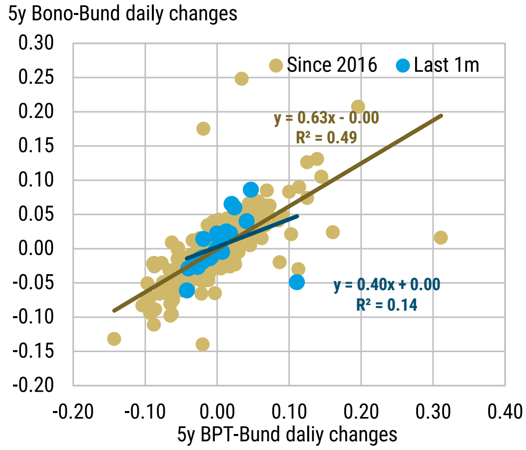
How to position?

With the tail-risk of eurozone breakup further diminished and the ECB easing support for longer we recommend long peripheral spreads vs core/semi-core sovereigns. We recommend to play this via a portfolio basis, with long both Spain and Italy versus France and Germany in the 5y sector. This offers the best carry on the curve and having short exposure via France also protects from the risk of potential wide-spread euro sovereign risk, as well as exploring the richness of OAT vs Bund that could potentially revert.

We recommend the beta weighting to be 70:30 on the long 5y Spain and Italy versus 25:75 on France and Germany. We derive the weights for the long leg on the basis of the 1 month rolling correlation between 5y BTP-Bund and Bono-Bund spread, while the weights of France and Germany are based on the last 3 months correlation between 5y BTP-Bund and OAT-Bund. The history of the beta weighted spread is shown in Exhibit 31 vs the 5y BTP-Bund and 5y Bono-Bund.

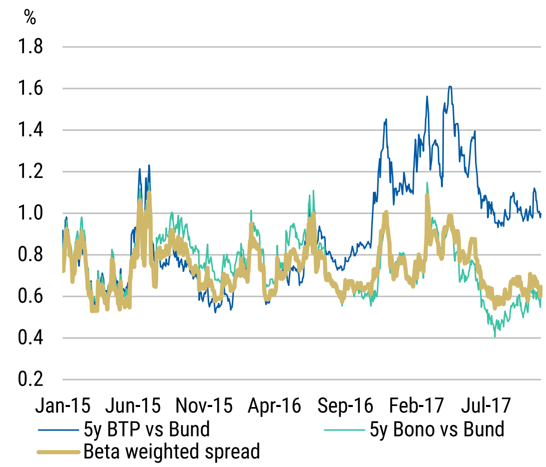
The risk to trade is a substantial widening in peripheral spreads related to a resurgence in political risk in Italy and/or the market getting increasingly concerned about the downside risks to Spanish growth from longer uncertainty.

Exhibit 30: 5y BTP-Bund vs 5y SPGB-Bund betas



Source: Morgan Stanley Research, Bloomberg

Exhibit 31: Periphery vs core/semi-core beta weighted spread



Source: Morgan Stanley Research, Bloomberg

Although we think that remaining long-end issuance for peripheral issuers is likely to slow down from here, the recent price action might have increased the prospects for the 20y syndication in Italy. We keep our 5s30s BTP steepener which positions nicely for carry & roll and also approximate for a ongoing steep core curve with a dovish ECB in a strong growth environment (see Euro area).

Trade idea: Long BTP Aug-22 and SPGB Apr-22 on 30:70 weight vs short FRTR Mar-23 and OBL Oct-22 on 25:75 weight at 66bp

United Kingdom - Holding flatteners through the syndication

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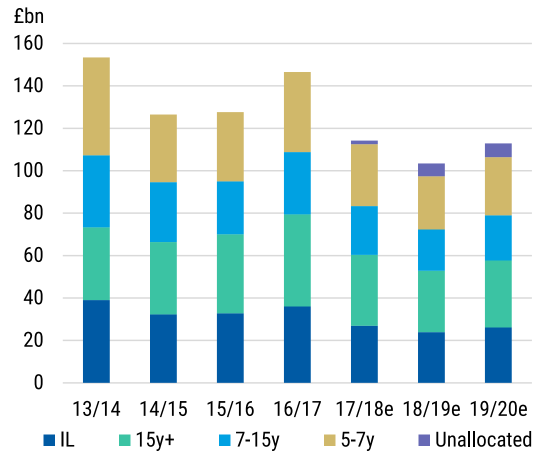
UKTi 10s30s flatteners

We hold 10s30s UKTi flatteners going into November, ahead of the FOMC and MPC meetings and the widely anticipated syndication of the Aug-48 linkers. We expect to see some tactical steepening of 10s30s into the syndication, both in nominal and in real space, but ultimately, as we have written before, given that the duration sector of the new bond is lower than more recent ultra-long syndications, and the lack of long-dated supply into year end, as well as expectations of lower supply in the coming fiscal year (Exhibit 32), we expect the syndication to be well-subscribed. Furthermore, our fair value models for UKTi (Exhibit 33) show that 10y real yields remain rich, while 30y has moved more in line with fair value in the recent leg higher in yields.

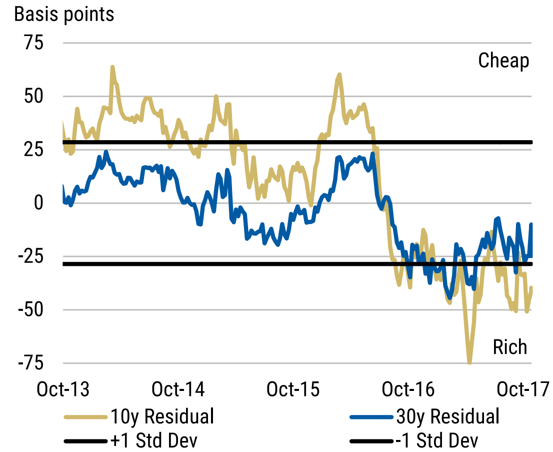
The risk to our call is a hawkish surprise in both of next week's central bank meetings. As UK term premia are highly correlated with US term premia, any steepening of the curve in the US would drive UK duration as well.

Exhibit 32: Gilt supply by bucket



Source: Morgan Stanley Research, DMO

Exhibit 33: UKTi fair value model residuals



Source: Morgan Stanley Research, Bloomberg

UKTi Aug-48s syndication

We come up with fair value estimates for the new Aug-48s linker by interpolating across the Libor z-spread and real yield curves, also making adjustments for seasonality between bonds with different maturity months. As the new Aug-48s have a low coupon relative to surrounding bonds, their modified duration is almost exactly the same as the March-50s (in fact slightly higher), so interpolating based on maturity and modified duration give slightly different results.

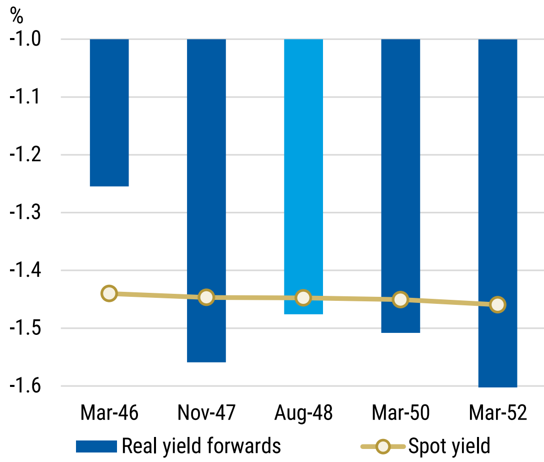
Libor z-spread

Using the Libor z-spread metric is a good way to look at relative value of neighbouring linkers without having to worry about adjusting for the impact of seasonality on different maturity month bonds.

Linearly interpolating between the z-spreads of the Nov-47s and the Mar-50s, we expect the Aug-8s to trade at a Libor z-spread of 36.6bp. This in turn implies a yield of -1.4475%, which we calculate by projecting inflation-uplifted cashflows based on market pricing of the path of inflation, and discounting by the shifted Libor curve This is roughly in line with the Nov-47s (-1.4469%) and slightly cheap to the Mar-50s (-1.4506%). The Mar-50s have a higher coupon, so it makes sense that they would trade slightly rich. The richness is more apparent on the forwards (Exhibit 34).

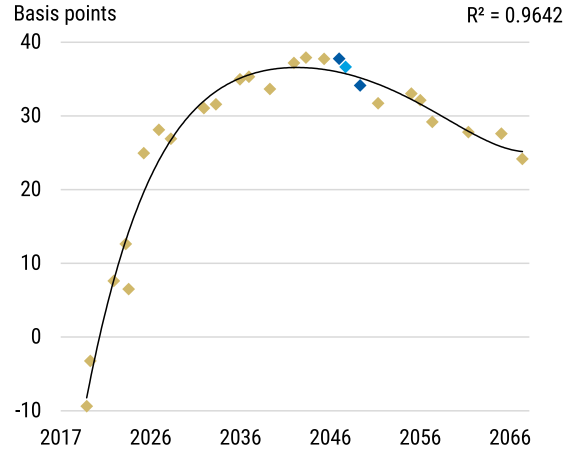
Fitting a 5th-order polynomial spline through the Libor z-spread curve (see Exhibit 35), we see that the Mar-50s seem to trade slightly rich to their estimated fair value, while the opposite is true of the Nov-47s. Since the new bond has a slightly higher duration than the Mar-50s, interpolating between the z-spreads of the Mar-50s and Mar-52s is more appropriate, and results in a z-spread of 34.1bp. However, note that the Mar-52s only have a slightly higher coupon than the Aug-48s, and have a lower coupon than the Mar-50s, but trade richer because they are skewed by the Nov-55s, a bond with a substantially higher coupon.

Exhibit 34: Aug-48s: Spot yield and forwards calculated from Libor z-spread interpolated on maturity



Source: Morgan Stanley Research, Bloomberg

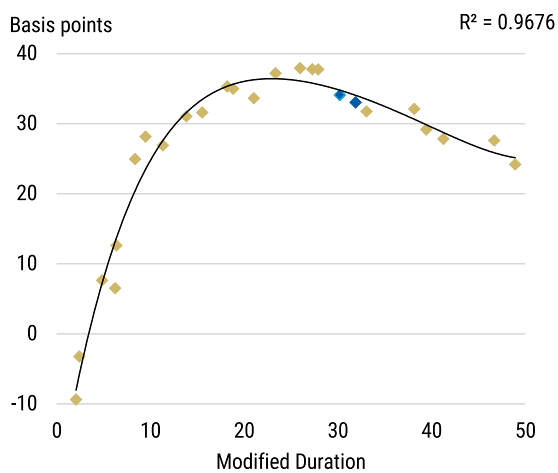
Exhibit 35: UKTi Libor z-spreads by maturity



Source: Morgan Stanley Research, Bloomberg

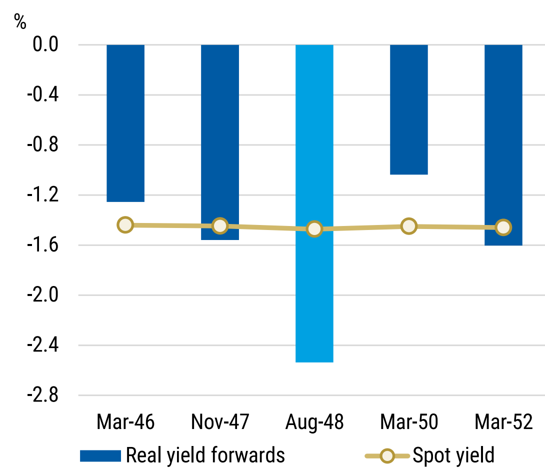
Running the same spline through the z-spread curve based on modified duration (Exhibit 36), we see that despite the richness, the bonds appear to deviate less from the spline, and that the Aug-47s are in line with the Mar-50s. The fair yield implied by this z-spread is -1.4722%. The resultant forwards (Exhibit 37) make the Aug-48s optically rich to surrounding bonds, but this makes sense.

Exhibit 36: UKTi Libor z-spreads by modified duration



Source: Morgan Stanley Research, Bloomberg

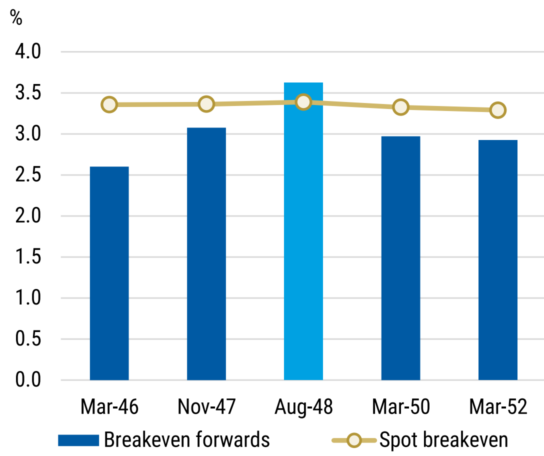
Exhibit 37: Aug-48s: Spot yield and forwards calculated from Libor z-spread interpolated on modified duration



Source: Morgan Stanley Research, Bloomberg

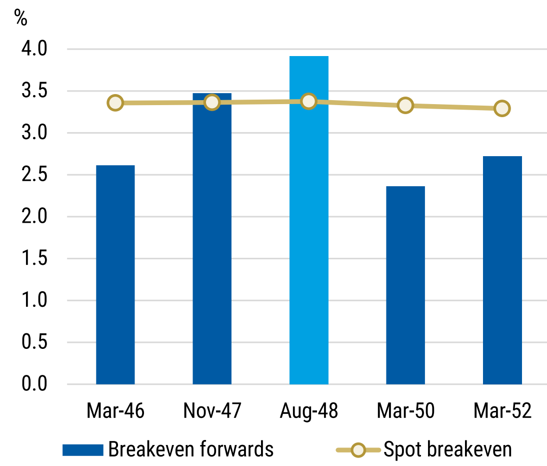
Using the real yield estimate based on modified duration, and taking the current on-the-run 30y benchmark - the Jul-47s - as the nominal comparator (which both the Mar-46s and Nov-47s use), we estimate a spot breakeven of 3.39% (Exhibit 38).

Exhibit 38: Aug-48s: Spot breakeven and forwards calculated from Libor z-spread interpolated on modified duration



Source: Morgan Stanley Research, Bloomberg

Exhibit 39: Aug-48s: Spot breakeven and forward calculated by interpolating the seasonally adjusted forward curve on maturity



Source: Morgan Stanley Research, Bloomberg, Morgan Stanley trading desk estimates

Seasonally adjusted real-yield forwards

We estimate fair value of the new bond by interpolating between the real yield forwards. As the curve is made up of bonds with different maturity months, we make an adjustment for the difference in inflation accrual between bonds attributable entirely to seasonal RPI fluctuations, which we assume the market prices efficiently. Even though these bonds are high duration, the impact of seasonality is still significant.

We estimate the forward yield between the Nov-47s and Aug-48s by linearly interpolating between the adjusted forwards between the Mar-46s and Nov-47s and the Mar-50s and Mar-52s, and back out an estimate for spot. Using this method, we estimate a fair yield of -1.4597%, resulting in a breakeven of 3.3754% (Exhibit 39).

Trade idea: Hold 10s30s UKTi flatteners (Nov-47s vs. Nov-27s) at 25bp

Japan - Lifers' 2H FY2017 Investment Plan

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Continuation of risk on view

Japan's major life insurers have announced their investment plans for 2H FY2017 (October 2017–March 2018). Asset class forecast ranges are generally indicative of a "risk on" bias (See Exhibit 40).

Many seem to be holding out hope for solid US economic fundamentals, fiscal stimulus on back of advancement in US tax reforms, and a continuation or reinforcement of Abenomics following the ruling coalition's convincing victory in the October 22 Lower House election.

As seen in Exhibit 40, lifers are once again looking to either maintain or reduce their JGB exposure as yields remain at low levels, while increasing their allocations to foreign bonds and credit assets. Most have indicated that their decisions on FX hedge ratios for foreign bond investments will depend on both interest rate and exchange rate levels.

However, the overall picture is that lifers are keen to buy foreign bonds while also leaving themselves in a position to benefit from benign FX movements (with the risk of adverse movements seemingly considered tolerably low).

Exhibit 40: Japanese Lifers' Forecast Range per Asset Class for 2H FY2017

Company name	JGB 10y (%)	UST 10y (%)	USDJPY	EURJPY	Nikkei (JPY)
Nippon Life	-0.2-0.2 (-0.2-0.2)	2.0-3.0 (2.0-3.0)	100-120 (100-120)	110-140 (110-130)	18000-22000 (17000-22000)
Daiichi Life	-0.1-0.3 (-0.2-0.4)	2.0-3.0 (2.0-3.0)	100-125 (100-120)	115-145 (105-135)	17000-23000 (16000-22000)
Meiji Yasuda Life	-0.1-0.2 (-0.1-0.2)	2.0-3.0 (2.0-3.0)	101-121 (101-121)	120-145 (107-128)	19000-23000 (17000-21000)
Japan Post Ins.	-0.1-0.2 (-0.1-0.5)	2.1-2.7 (2.2-3.0)	105-120 (105-125)	125-140 (110-130)	19000-23000 (17000-22000)
Sumitomo Life	-0.1-0.2 (-0.2-0.2)	1.8-2.8 (2.0-3.0)	100-120 (100-125)	115-140 (110-135)	18500-24000 (17000-24000)
Mitsui Life	-0.1-0.2 (-0.1-0.2)	1.8-2.6 (2.4-3.2)	108-118 (111-121)	127-142 (113-128)	19700-22000 (19200-21700)
Fukoku Life	-0.1-0.15 (-0.1-0.15)	2.3-2.9 (2.3-2.9)	100-120 (100-120)	120-140 (110-130)	18000-22500 (17500-21000)
Daido Life	-0.05-0.15 (-0.1-0.2)	2.0-2.6 (2.0-2.9)	107-117 (105-125)	126-138 (110-135)	18000-23000 (17000-22500)
Taiyo Life	-0.1-0.1 (-0.1-0.1)	2.0-3.2 (1.8-3.2)	105-125 (100-125)	120-140 (105-135)	19000-22000 (17000-22000)
Asahi Life	0.0-0.15 (0.0-0.2)	2.0-2.7 (2.0-2.8)	108-118 (105-120)	125-140 (112-128)	18000-22500 (16000-21000)

Source: Bloomberg, Reuters, Morgan Stanley Research
*The figures in the brackets show the forecast range from the Lifers' 1H FY2017 Investment Plan

Exhibit 41: Japanese Lifers' Investment Plan per Asset Class for 2H FY2017

Company name	JGB	Foreign Bond (FX hedged)	Foreign Bond (non-FX hedged)	Domestic Stock	Foreign Stock
Nippon Life	Flat	Decrease ↓	Increase* ↑	Flat	Slightly Increase ↑
Daiichi Life	Decrease ↓	Depends on yield	Likely Increase* ↑	Depends on level	Increase ↑
Meiji Yasuda Life	Flat	Increase* ↑		Flat	Flat
Japan Post Ins.	Decrease ↓	Increase ↑	Flat	Flat	Flat
Sumitomo Life	Flat	Increase ↑	Depends on FX	Flat	Flat
Mitsui Life	Decrease ↓	Flat	Increase ↑	Flat	–
Fukoku Life	Decrease ↓	Increase ↑	Increase* ↑	Flat	Increase ↑
Daido Life	Flat	Increase* ↑		Increase ↑	Increase ↑
Taiyo Life	Decrease ↓	Increase ↑		Flat	–
Asahi Life	Decrease ↓	Increase ↑		Increase ↑	–

Source: Bloomberg, Reuters, Morgan Stanley Research
* indicates that the lifer mentioned that they will increase depending on levels of yield or FX

Below we summarize what the 2H FY2017 investment plans suggest about intentions vis-à-vis each individual asset class.

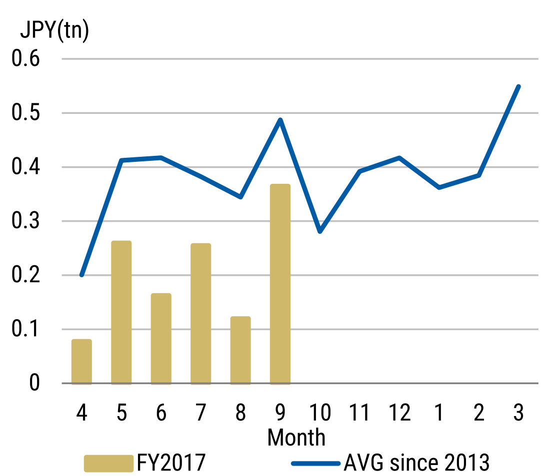
No more super-long JGBs

Major lifers plan to either reduce or at most maintain their JGB exposure, with some having already stopped buying altogether for at least the time being, others indicating that they will limit themselves to reinvestment of redemption proceeds, and many expressing a desire to shift into foreign bonds and other higher-yielding assets.

Forecasts for the 10y JGB yield have a median range of –0.10% to +0.20%. This roughly translates into a midpoint of 0.85% and ceiling of 1.00% for super-long yields, suggesting that buying interest might pick up at levels near 0.90%. There is a company that has actually indicated that they will look to resume their accumulation of 20y and 30y JGBs if yields reach 1%.

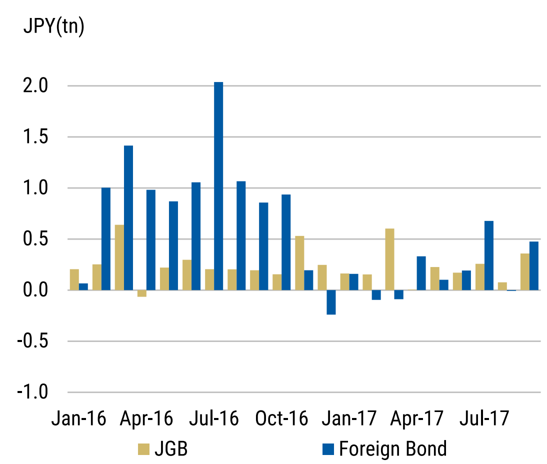
Furthermore, lifers tend to increase their JGB purchase into the Japanese FY-end in March (See Exhibit 42) in an effort to reduce ALM mismatches. In addition, since their purchasing pace has been below average this fiscal year, we still see potential for lifers to purchase super-long JGBs towards the end of the year despite the fact that many are looking to reduce their JGB portfolios, as outlined in their investment plans.

Exhibit 42: Lifers' Net Purchase of JGBs vs Average



Source: JSDA, Morgan Stanley Research

Exhibit 43: Lifers' Net Purchase of JGBs vs Foreign Bonds



Source: MoF Japan, JSDA, Morgan Stanley Research

Expanding non-FX hedged Foreign Bond investment

All major lifers have indicated that they will be looking to increase their foreign bond exposure, with many also saying that they are willing to take on exchange rate risk (although as in 1H, much will reportedly depend on interest rate and exchange rate levels) (See Exhibit 41).

This can be summarized as a desire to buy on price dips. Forecasts for USD/JPY have a median of 103–120, suggesting that non-FX hedged foreign bond investment might be ramped up at or below 110.

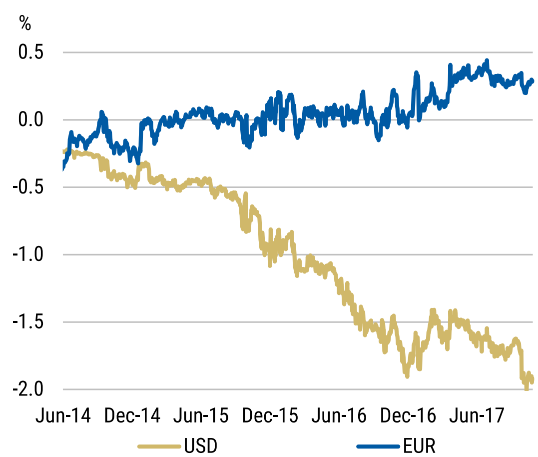
Exhibit 43 shows Lifers' net purchase amount of JGBs vs foreign bonds since the implementation of negative rates by the BoJ in January 2016. While the net purchases of foreign bonds have surpassed those of JGBs as the investment plans for this FY has indicated, it appears that lifers have not been able to add to their foreign bond portfolio when compared to FY2016, despite the outlook for expansion in their investment plans. Thus, we see ample room for an acceleration of foreign bond purchases in the current fiscal half.

Moreover, as discussed in our previous Global Rates & FX Strategy report (Japan: Lifers Foreign Currency SPLs), a number of established Japanese life insurers have been increasing their sales of foreign-denominated insurance products against the backdrop of super-low yields in Japan. FX risk for such products is basically borne by the policyholder, leaving lifers free to channel sales proceeds into non-FX hedged foreign bond investment.

Single-premium products launched this year are typically denominated in US or Australian dollars and will either mature (pay out) after 10–15 years or have their guaranteed return reset at that time. Investment in sovereign bonds alone will not be sufficient to cover promised returns, for which reason lifers seemingly have little option but to take on additional credit risk or—where this is difficult due to availability constraints—buy foreign-denominated JGB repackagings.

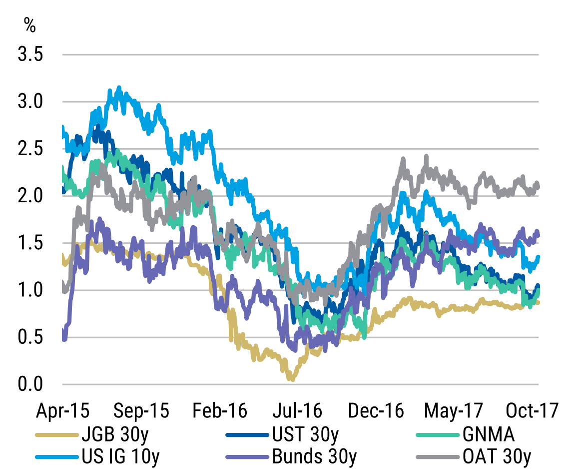
Many lifers have indicated that they intend to reduce allocations to FX-hedged foreign bonds, citing the likelihood of a further rise in hedging costs as the Fed continues to hike rates. Moreover, the aforementioned "risk on" bias suggests that lifers expect interest rates to move higher. Based on a comparison with super-long JGB yield levels, we believe the best options for FX-hedged investment at this juncture are European bonds (for which hedging cost is positive and ends up benefiting the investor as in Exhibit 44) and US corporate bonds (See Exhibit 45).

Exhibit 44: USD and EUR Hedging Cost (3m roll)



Source: Bloomberg, Morgan Stanley Research

Exhibit 45: 30y JGB yield vs 30y FX-hedged Foreign Bond yield, Ginnie Mae and US IG (3m roll)



Source: Bloomberg, Morgan Stanley Research

Diversification remains the trend

Lifers have indicated that they will either maintain or increase their exposure to domestic and foreign equities, but we do not envisage much of a rush to add to positions given that existing portfolios are likely to be performing well after such a sustained stock market rally.

Lifers are also planning to diversify into assets offering a means of boosting yields without taking on greater duration risk. Overseas credit products have for some time now accounted for the lion's share of foreign bond investment, but a number of companies have indicated that they will be looking to invest in new names and regions.

Asset classes that look set to see increased inflows from some lifers include investment trusts, "alternative" investment products such as private equity, hedge funds and real estate. There were also mentions of expanding investment in other assets such as bank loan funds, CLOs, aircraft finance loans, and project finance loans.

Inflation

United States

We look at recent breakeven moves and the drivers behind them. We found that the markets have had more days of optimism in the last two months than in any two-month period over the past two years, likely fuelled by expectations for tax reform. We stay neutral on long-term breakevens while continuing to suggest receiving in 1y1y CPI swaps.

We focus on understanding value in long- and short-term breakevens. While both appear rich to slightly rich on valuation metrics, we believe that given other supportive factors for breakevens like oil prices, momentum, and equities, valuation arguments aren't compelling enough to short breakevens yet.

Global summary

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Our Inflation Bond Market Indicators (iBMIs) are now suggesting long positions on breakeven markets in all of the G4 regions - with Europe joining the list this week. Oil prices, momentum, and equities are positives in all four regions, while the value factor is negative in all regions except Japan, making the Japanese signals the most bullish among the four regions. Exhibit 46 shows the BMI readings as of Thursday close, October 26.

Exhibit 46: Morgan Stanley Inflation Bond Market Indicators (iBMI)

	Crude Oil	Momentum	Equities	Value	Average	Overall
TIPS	3.3 (2.8)	2.6 (5.5)	0.3 (1.2)	-1.9 (-1.3)	1.1 (2.1)	**1.1 (2.1)**
UKTi	3.9 (2.6)	6.7 (7.2)	0.5 (0.2)	-4.8 (-4.9)	1.6 (1.3)	**1.6 (1.3)**
HICPxT	4.0 (3.2)	7.5 (4.6)	0.2 (0.8)	-6.2 (-6.2)	1.4 (0.0)	**1.4 (0.0)**
JGBi	4.2 (3.8)	4.8 (3.1)	1.4 (1.8)	3.5 (3.5)	3.5 (3.1)	**3.5 (3.1)**

Source: Morgan Stanley Research
Note: Positive # = long inflation breakeven; Negative # = short inflation breakeven, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.0

Oil prices continue to support breakevens, as WTI prices have moved from $46 to $52.5 since late August in almost a straight line, keeping the oil signal consistently positive. Breakevens have also had upward momentum, with the momentum in TIPS starting after Hurricane Harvey in August. The recent richening of breakevens has hurt the 'value' - especially as breakevens run above the realized 5-year trends in inflation in the US, the UK, and Europe.

We stay neutral on TIPS outright but reiterate our receiving on 1y1y CPI swap trade as a way to capture upside even in our 'delayed and diluted' tax reform scenario. We continue to like 10s30s breakeven curve steepeners in the UK, and also like 10s30s HICP swap flatteners in Europe as a way of being cautiously long on European inflation. Discussion about the next Fed chair, tax reforms, Abenomics 2.0, and Brexit will be key drivers for inflation markets, making the next few weeks hinged on political decisions.

United States - Where is the 'value' in breakevens?

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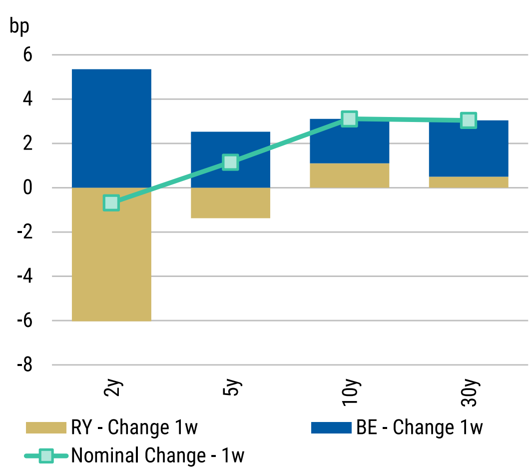
Breakeven recap

Breakevens widened further this week, even as real yields were mixed (see Exhibit 47). Breakeven widening was led by the front end, helped by the upward momentum in oil prices. Additionally, the tailwind of tax reforms moving ahead, with the House voting for the budget resolution in the Senate, has opened the doors for the tax reform to move much more quickly.

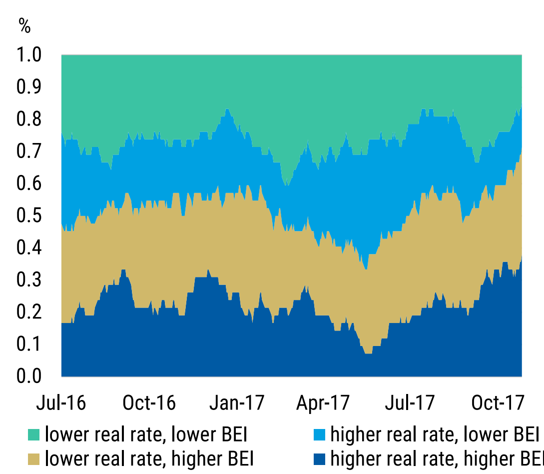
Additionally, the choice for the next Fed chair seems to have narrowed down to Powell and Taylor, with Powell expected to be just as hawkish as current chair Yellen, while the market reaction to Taylor would be in accordance with an even more hawkish Fed. Overall, regardless of the result, we see little support for the breakeven markets from the Fed. However, as we stated in our FOMC preview report, if the Fed were to acknowledge a decline in inflation expectations at the upcoming FOMC meetings, it could mean a more dovish tilt and could support breakevens, given their recent positive momentum.

Exhibit 47: Moves in TIPS real yields and breakevens over the past week



Source: Bloomberg, Morgan Stanley Research

Exhibit 48: Combinations of real rate moves and TIPS breakeven moves in 2-month windows



Source: Bloomberg, Morgan Stanley Research

Overall, with current breakeven levels, we do not see much value in the longer-dated tenors. In the short term, we do see some upside from tax reform and continue to suggest receiving in 1y1y CPI swaps.

In examining recent market moves, we find it interesting that breakevens and real yields have risen together more frequently in the last two months than they did even after the November 2016 election. Exhibit 48 shows the combinations of real rates and breakeven moves on a rolling 2-month window. We believe **this suggests that the markets have had more days of optimism in the last two months than in any two-month window over the past two years.**

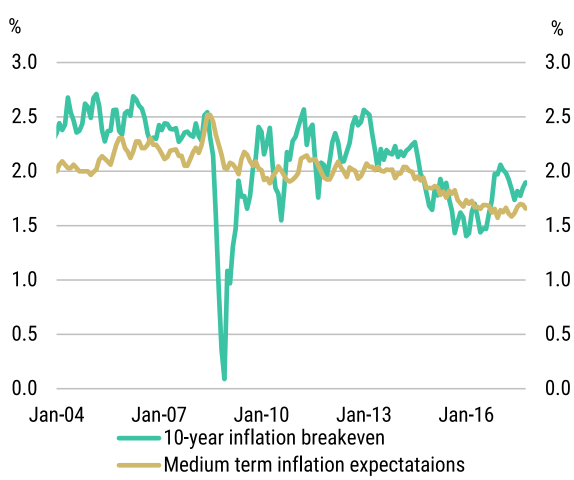
Where is the 'value' in breakevens?

With the recent move higher in breakevens, we see the 'value' argument in longer-dated TIPS breakevens as now having diminished. We think the current levels of **longer-dated breakevens are now starting to look 'rich'** versus more neutral valuations that existed in the range-bound trading we saw in September. **Even though front-end breakevens appear rich in terms of valuations, we see more scope for them to outperform** with a tailwind of tax reform, and thus we like receiving in 1y1y CPI swap receiving trade, that we suggested last week.

Analyzing value in long-dated breakevens: To understand value in breakevens, we focus on creating metrics of inflation expectations and inflation risk premiums - akin to analyzing term premiums and rate expectations for nominal Treasury yields. While it is true those are not the only two components embedded in breakevens - which include liquidity costs, deflation premiums, and balance sheet costs, and convexity differences between real yields and nominals - we focus on a simpler decomposition for now.

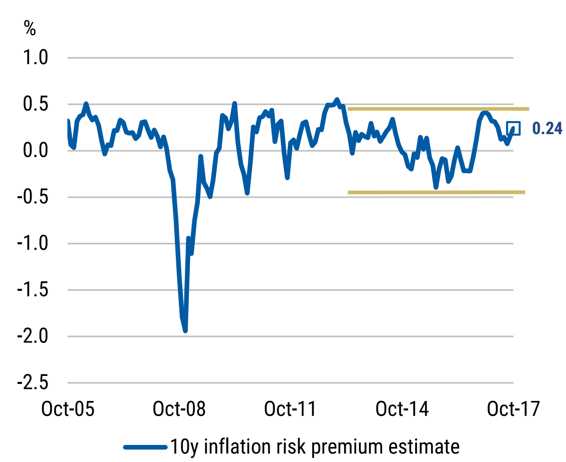
To begin the decomposition, we focus on extracting longer-term inflation expectations embedded in the market. Just like we use Blue Chip inflation expectations in our Dynamic Term Structure Model, **to extract inflation expectations, we use a trend component extracted using (1) the Survey of Professional forecasters and (2) the University of Michigan 5-10-year inflation expectations**. We would have liked to add the NY Fed's Survey of Consumer Expectations as well, but there is not enough history for the same.

Exhibit 49: 10-year breakeven with our estimate of long-term inflation expectations



Source: Bloomberg, Morgan Stanley Research

Exhibit 50: Estimated inflation risk premium in 10-year breakevens



Source: Bloomberg, Morgan Stanley Research

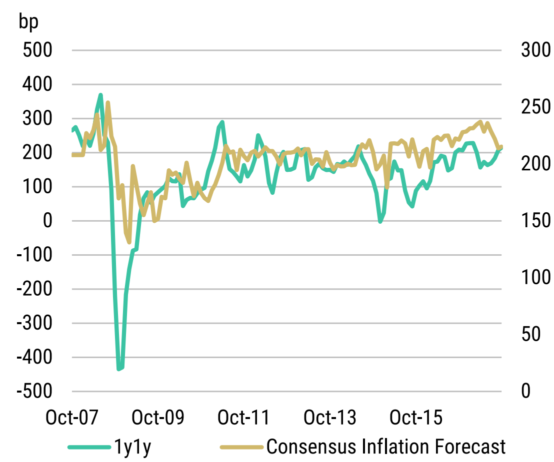
We use Principal Component Analysis (PCA) to extract the trend in both the surveys. We use a projection of the first Principal Component to determine the trend, which explains about 90% of the variation in both the surveys. The PCA technique allows us to filter the noise in both surveys and captures the common trend that drives both surveys. We further take a 3-month moving average to smooth out the moves in inflation expectations.

Exhibit 49 shows the 10-year breakeven along with medium-term inflation expectations. We can see that while 10-year breakevens are currently low vs. their historical ranges, inflation expectations - the baseline to value breakevens - has also lowered over the last few years. The difference between breakevens and inflation expectations - the inflation risk premiums (see Exhibit 50) - is now closer to the top end of the range, suggesting that **10-year breakevens are on the richer side of their historical range.**

Finding value in short-term breakevens

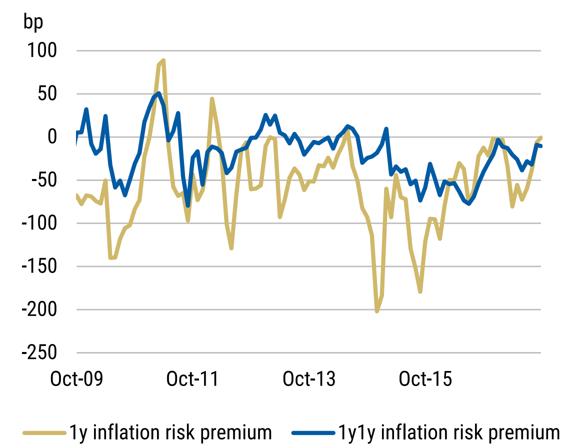
We differentiate between the framework for finding value in shorter-dated breakevens and that for finding value for longer-term breakevens. Longer-term inflation expectations can often differ significantly from short-term expectations, which may be guided by idiosyncratic events like hurricanes, droughts, and geopolitical events. While longer-term inflation expectations should in theory be anchored to the longer term 2% target of the Fed, and move very slowly over time, shorter-term expectations can be much more volatile.

Exhibit 51: 1y1y CPI swaps with Bloomberg estimate of one-year ahead inflation expectations



Source: Bloomberg, Morgan Stanley Research

Exhibit 52: Estimated inflation risk premium in 1y and 1y1y CPI swaps



Source: Bloomberg, Morgan Stanley Research

To construct a similar analysis for shorter-dated breakevens, we look at the Bloomberg consensus 12-month ahead CPI expectations and match them with shorter-dated CPI swaps up to 3 years out. To be specific, we look at 1y, 1y1y1 and 2y1y CPI swaps. Looking at CPI swaps instead of TIPS breakevens helps counter any seasonality related distortions, which can be more challenging to filter out in front-end breakevens.

Exhibit 51 shows the moves in the 1y CPI swap vs. the consensus 1-year forward CPI forecast, whileExhibit 52 shows the inflation risk premium in the 1y and 1y1y CPI swaps. Valuation of front-end inflation expectations is more challenging in that economists' forecasts can slightly lag the available information priced by the market. However, in this context **it is interesting that 1y1y CPI swaps have been richening even as expectations for realized inflation have been going down,** suggesting the market is already pricing in an uptick in inflation due to expectations of a tax reform.

Why not go short breakevens? Overall, we feel US inflation markets are on the richer end of their historical inflation risk premiums, and thus valuations are not attractive to go long inflation protection. However, we do not suggest going short breakevens, for two reasons. We still like receiving on 1y1y inflation swaps in the near term. However, an overall weak trajectory for inflation as well as the Fed's hawkish stance keep us bearish on breakevens in the medium term.

- **Valuations not extreme yet:** Valuations are not extreme yet, as Exhibit 50 and Exhibit 52 show. While we see breakevens as rich, they have been richer in the past. In that context, 1y1y CPI swaps are closer to their post-election rich levels seen in November 2016, while longer-dated breakevens are still well away from those rich levels. However, we still see more room for 1y1y CPI swaps to richen.

- **Value doesn't work in the short term:** As our iBMIs back-testing has shown, tactical trades based on value considerations tend to do poorly over the long run. In the short run (our focus here), momentum favors being long breakevens instead. Moreover, our overall iBMI framework suggests that all 3 - oil prices, momentum and equity markets -are favoring being long breakevens instead.

Trade idea: Receive 1y1y inflation swap at 192bp

Money Markets

United States
We maintain 1y1y FRAOIS tighteners vs 5y swap spread wideners. The trade carries/rolls 3x better than 10y USTs, both outright and in vol-adjusted terms. The trade positions to benefit from the continued AUM flow into MMFs and the expected FDIC surcharge change in 2018.

We also address some of the concerns from investors that Fed Balance Sheet normalization or increased T-bill issuance could lead to wider FRA-OIS. We do not think either factor poses a risk to the trade.

Japan
In Japan, we suggest 2y JZ spread widener. Overseas investors started to price in the early policy rate hike in the OIS curve, causing the tightening of the short-end JZ spread. Now the short-end JZ spreads are trading near historical lows and we think this pricing looks too complacent. We suggest fading this move.

United States - Libor/OIS: to Single Digits?

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How did we get here?
We highlighted the trend of AUM inflow to Money Market Funds (MMFs) in Time to Shrink a Balance Sheet (September 15, 2017), arguing that it is likely to keep front-end FRAOIS spreads under pressure. In our latest Money Market piece we set a 10bp target on 3m Libor-OIS, which we expected to be reached within three months.

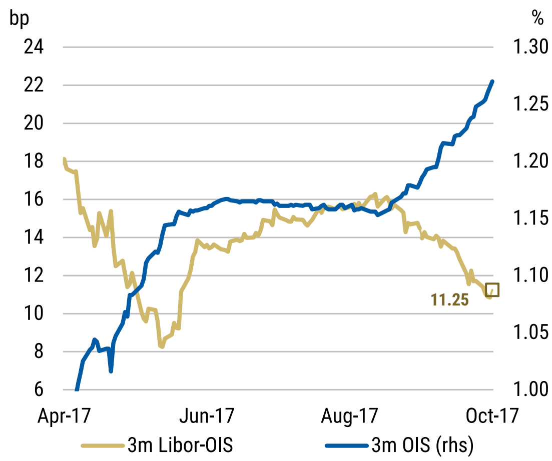
Over the past few days, Libor-OIS already reached 10.85bp, which was a faster drop than we anticipated. However, we are not pushing down our forecast on the back of that drop, since we believe the rise in FF OIS over the past week has been a contributer to the tightening of the spread. That is, the tightening was not only driven by the AUM fundamental story we discussed before.

Exhibit 53 and Exhibit 54 illustrate how Libor tends to be "sticky" relative to OIS rates. As OIS rises and Libor is slower to rise, Libor-OIS spread tends to tighten, leading to a negative correlation between moves in the OIS rate and the Libor-OIS spread.

However, the correlation between those two variables is only moderately strong, with an R-squared of 39% when using weekly changes and the past two years of history. Using daily or monthly changes and shorter or longer histories also gives a moderate R-squared in the range of 10% to 60%.

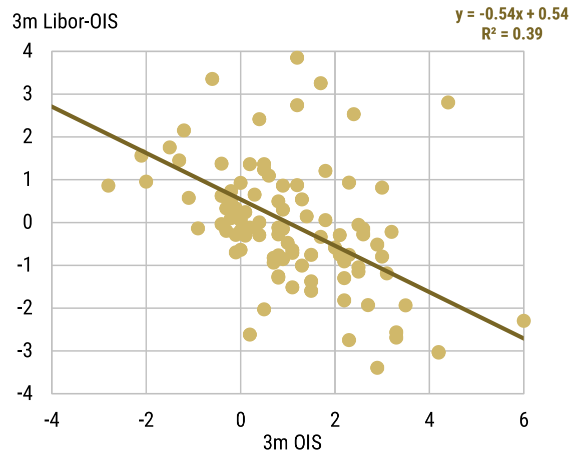
Thus we caution investors against fully subscribing to the view that the tightening in Libor-OIS has been solely driven by the rise in OIS. Over time, Libor rates "catch up" to OIS as the commercial paper market rates adjust and fundamental supply and demand of funding drivers (e.g., MMF AUM, issuance levels, and banking credit risk) take the lead in determining Libor-OIS spreads.

Exhibit 53: 3m Libor-OIS spread and 3m Fed Funds OIS



Source: Morgan Stanley Research, Bloomberg

Exhibit 54: Regression of weekly moves in 3m Libor-OIS spread against 3m OIS since 2015



Source: Morgan Stanley Research, Bloomberg

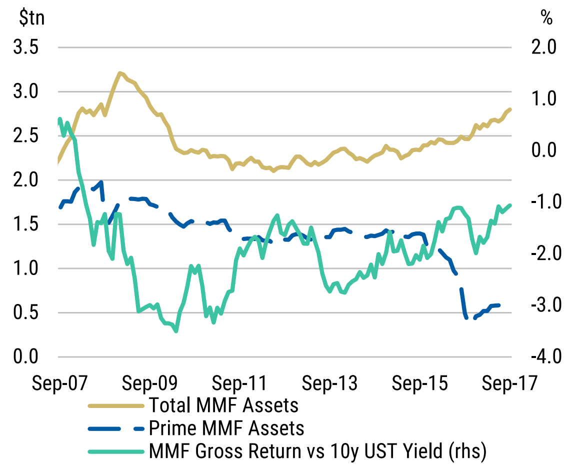
It is our belief that, over time, fundamental drivers will keep spot Libor-OIS at tight levels, meaning that forward implied FRAOIS spreads are likely to roll-to-spot; if not lower. However, the FRAOIS market does not seem to price- in such fundamentals, which is leading to a historically steep slope in the FRAOIS spread curve. As we discussed in the latest publication, we believe the steep slope offers an attractive entry point into a 1y1y FRAOIS tightener, which should benefit from:

1. **End of the FDIC surcharge on large financial institutions' assets**, which would make holding excess reserves less expensive, leading to a higher FF rate within the Fed Funds target. This is likely to subtract 3-5bps from the Libor-OIS.

2. **Continued flow of AUM into MMFs driven by higher front-end rates** and flatter yield curves. YTD we saw over $180bn of inflow and we expect more than $80bn more inflow by year end given the seasonality of flows (see Exhibit 55 and Exhibit 56). We discussed that point in more detail in the aforementioned September 17 publication.

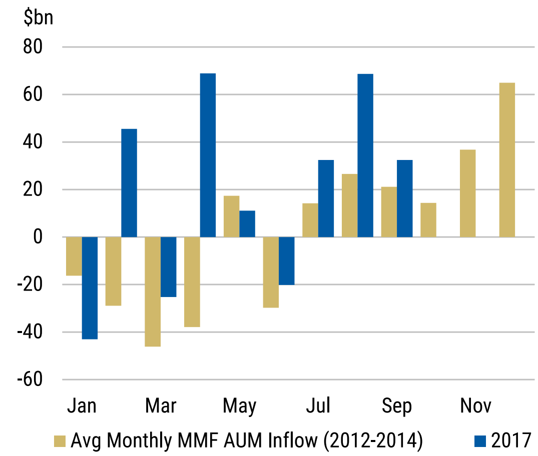
3. The trade carries/rolls positively, particularly when combined with a 5y swap spread or invoice spread widener, **which also carries positively while providing protection in a risk-off scenario** that could lead to spread widening.

Exhibit 55: MMF AUM vs the yield differential between 10y Treasuries and MMF returns



Source: Crane Data Money Fund Intelligence

Exhibit 56: Average flow into MMFs from 2012 to 2014 vs 2017 flow



Source: Crane Data Money Fund Intelligence

Balance Sheet Normalization = Tighter Funding?

One of the comments that we got from our discussion with investors is that the Fed's Balance Sheet normalization could lead to increased CP issuance to replace the funding lost in the FF market.

We think this is unlikely to occur since roughly half of all excess reserves is held by Foreign Banking Organizations (FBOs). FBOs primarily hold the excess reserves for FF vs IOER arbitrage. They can borrow funds in the FF market and earn a 9bp spread against the IOER that the Fed pays. FBOs are able to do this transaction since European regulators only assess balance sheet sizes at quarter and month ends. By simply pausing the arbitrage transactions at reporting periods, FBOs can monetize those 9bps of arbitrage.

Replacing that funding through borrowing in the CP market at rates above Libor would make no economic sense since Libor is higher than the IOER rate.

Higher T-bill Issuance = Higher Libor?

Another argument that we came across is that higher T-bill issuance in 2018 would increase the supply of short-term paper, which is likely to put upward pressure on CP and Libor rates.

While we believe there would be a significant increase in net T-bill issuance over the 2018, we believe that is a story for T-bill and Repo rates rather than CP or Libor rates. This is because for T-bill issuance increase to lead to higher CP rates, two events need to occur: 1) T-bill yields have to rise and 2) the rise has to be large enough to encourage AUM to flow from Prime MMFs which invest in CPs to Government MMFs which invest in T-bills.

We do not think the yield spread differential between CPs and T-bills would tighten sufficiently to encourage outflows from Prime MMFs given that the T-bill market is already facing a supply shortage due to the MMF reform induced AUM flow into government MMFs.

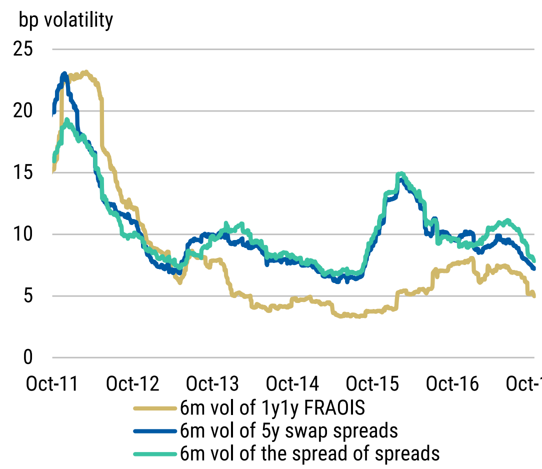
In addition, 90% of AUM flow into MMFs this year has been into Prime, rather than government money market funds.

Carry vs USTs

Finally, we take a look at the carry and roll profile of the trade where the investor puts on a 1y1y FRAOIS tightener against a 5y swap spread widener. Since risk-off moves typically widen spreads across the board, the volatility of the net position remains less than the sum of the volatilities of each position. In fact, during the European debt crisis, the volatility of the net position was lower than that of either legs of the trade. This implies a negative correlation between the moves in each leg (see Exhibit 57).

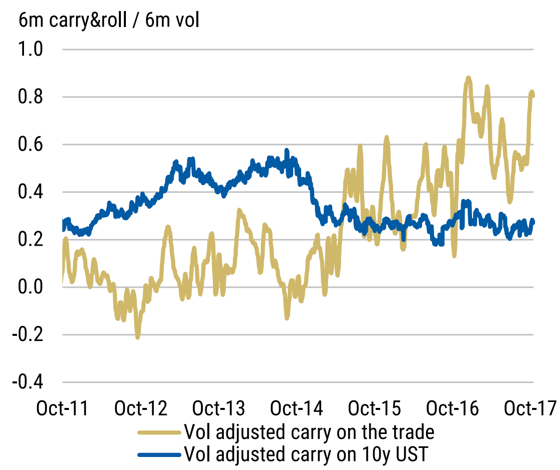
This feature of the trade, as well as the fact that both legs of the trade carry positively, leads to an attractive vol adjusted carry on the trade that is more than three times higher than the carry on 10y USTs (see Exhibit 58).

Exhibit 57: Realized volatility on the 5y swap spread, the 1y1y FRAOIS spread, and the spread of the two spreads



Source: Morgan Stanley Research

Exhibit 58: Vol adjusted carry on 10y USTs vs on a 5y spread widener + 1y1y FRAOIS tightener



Source: Morgan Stanley Research

Trade idea: Maintain 1y1y FRAOIS tightener and 5y swap spread widener

Japan - 2-Year JZ spread widener

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Short-end JZ spread tightened near historical low

As mentioned in the Duration and Curves section in Japan, OIS rates have risen of late as some market participants have priced in a termination of the BoJ's negative interest rate policy, while short-end swap rates have held steady (reflecting recent stability of LIBOR fixings) (see Exhibit 59).

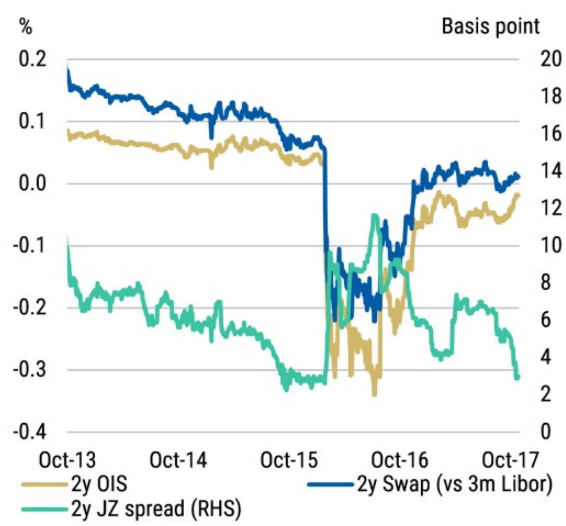
The net upshot is that the 2y JZ spread (2y swap with 3m LIBOR underlying vs 2y OIS spread) has tightened to a near all-time low of around 3bp. We see good reason to consider fading this move given that it is quite difficult to justify negative 3mLIBOR–OIS spreads.

3m JPY LIBOR drivers

As we discussed in our Global Interest Rate Strategist: The Central Banker Sell-Off report, the LIBOR fixing process has been standardized by the LIBOR roadmap published on March 2016. With regard to JPY LIBOR rates, the lack of actual transactions in the CP and CD markets will ordinarily mean that use of "Expert Judgement"—Level 3 in ICE Benchmark Administration's waterfall of submission methodologies—kicks in, meaning that submissions will in practice tend to be calculated using indicators for related market instruments.

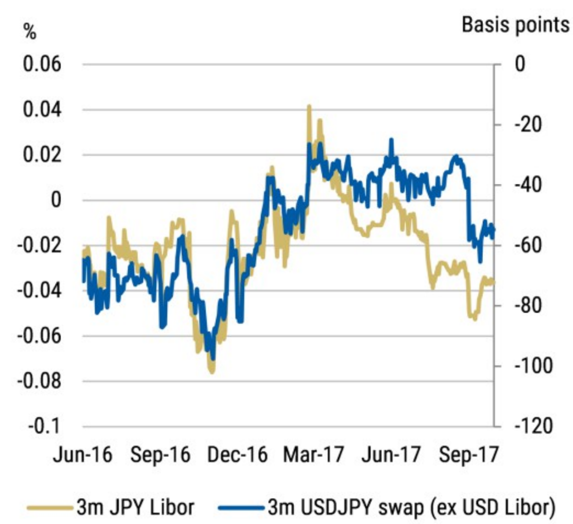
Most banks on the JPY LIBOR panel are foreign (non-Japanese), and seemingly reference fluctuations in FX swaps/forwards reflecting the ease (or otherwise) of converting one's own currency into JPY funding.

Exhibit 59: 2y JPY swap (vs 3m JPY Libor),2y OIS spread and 2y JZ spread



Source: Morgan Stanley Research

Exhibit 60: 3m JPY Libor vs FX swap cost (excluding foreign currency funding cost)



Source: Morgan Stanley Research

This may explain why the relative cost of JPY funding—the actual FX swap cost minus the own-currency funding cost—has tended to exhibit strong correlation with JPY LIBOR rates since the LIBOR roadmap was published(see Exhibit 60). Other referenced instruments would appear to include OIS rates and forward rate agreements (FRAs) etc.

3m LIBOR set to rise in the near term

The above suggests that 3m LIBOR will probably remain quite sensitive to 3m USD/JPY basis swap levels. 3m basis swap spreads have widened of late as they have priced in the concerns about USD funding availability around the year-end turn, but we expect this widening pressure to gradually abate from here.

Our reasoning is twofold. First, high FX hedging costs are likely to reduce Japanese life insurers' demand for JPY-hedged foreign bond positions. Indeed, recently announced investment plans for 2H FY2017 suggest that many lifers will be lowering their hedge ratios (i.e. taking on greater exposure to exchange rate fluctuation risk when buying foreign bonds) (see Japan Sovereigns section).

Second, recent widening of the USD/JPY basis will have made USD-denominated JGB positions more attractive to foreign investors once again(see Exhibit 3), which probably helps to explain which short-term JGBs have richened of late. We therefore believe that 3m LIBOR is more likely to rise than fall in the near term, thereby creating paying pressure in short-dated swaps.

Current OIS pricing

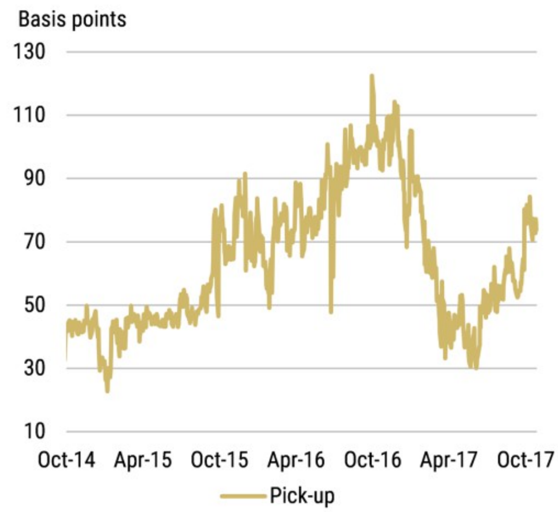
The uncollateralized overnight call rate has averaged around –5bp since the BoJ's adoption of its negative interest rate policy (NIRP). Given that it was averaging around 7.5bp pre-NIRP (because the banks have no incentive to lend the cash below the policy rates of 10bp), the OIS curve currently implies a roughly 40% probability of the BoJ hiking its policy rate prior to the planned October 2019 consumption tax hike(see Exhibit 62).

Reuters yesterday quoted government officials as saying that "Japan's government may be able to declare that the economy has made a sustained exit from deflation" prior to October 2019.

But they also said that "Such an announcement wouldn't prompt the Bank of Japan to dial back its massive monetary stimulus because inflation will still be short of its 2 percent target", suggesting that the Abe administration will be keen for the negative impact of the consumption tax hike to be offset by a continuation of monetary easing. We therefore consider a BoJ policy rate hike to be much less likely than the market is currently supposing.

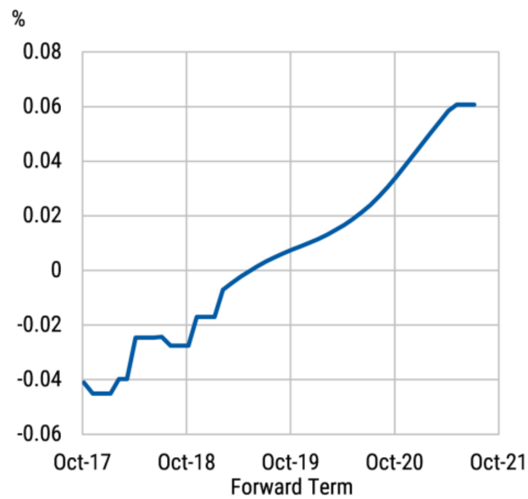
If an adjustment of monetary policy is deemed necessary, then we would expect it to begin with the long-term sector (given that the BoJ acknowledged in last year's "comprehensive assessment" that monetary easing is more effective at the short end of the curve). As such, we consider it unlikely that the perceived probability of an exit from BoJ NIRP will rise much further.

Exhibit 61: The relative pick-up of USD denominated JGB vs USD



Source: Morgan Stanley Research

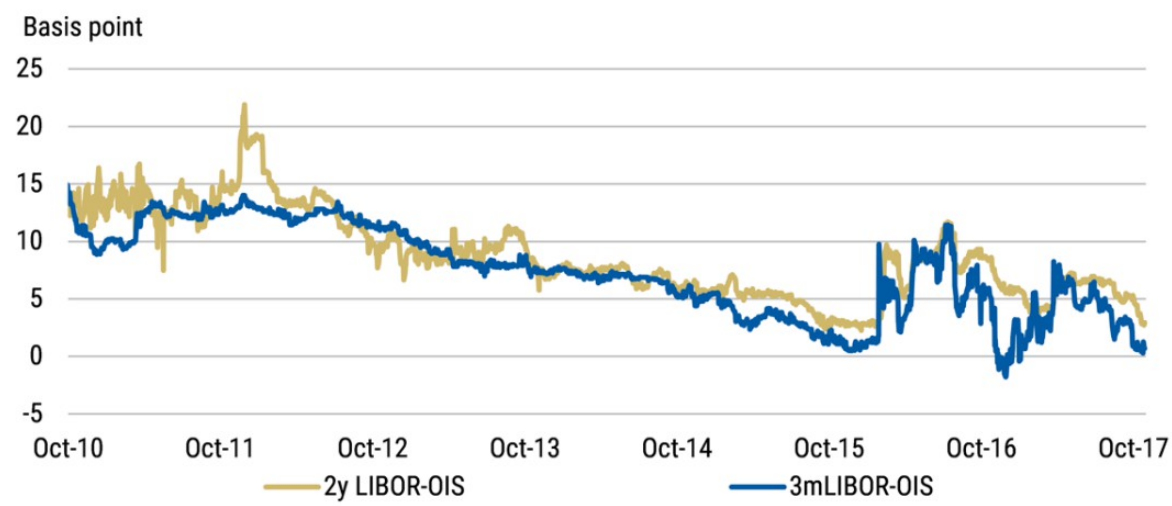
Exhibit 62: Forward o/n mutan call rates implied in OIS curve



Source: Morgan Stanley Research

Taking the above into consideration, we suggest positioning for a widening of the 2y JZ spread. This trade entails a negative carry of around 1bp over a six-month horizon, but risk/reward looks attractive due to seemingly limited downside(see Exhibit 63). Potential risks include (1) a sharp decline in 3m LIBOR due to an unexpected widening of USD/JPY basis swap spreads (reflecting concerns that USD availability might deteriorate further) and (2) continued bets on NIRP termination by foreigners in the OIS market.

Exhibit 63: 2y JZ spread vs 3m JPY Libor-OIS spread



Source: Morgan Stanley Research

Trade idea: 2y JZ spread widener at 3bp on both JSCC and LCH

Derivatives

United States

We like to own decorrelation risk of the front end as the curve oscillates on Fed chair speculation. We construct a limited downside "wedge" structure by selling a 1y swaption versus owning a strip of 3-month caplets to be long decorrelation and forward vol. Also, as more of a tactical trade, we like to fade the pop in upper right vol and payer skew. We construct a 6m10y payer ladder that has an upper breakeven of 2.95%. 10y rates have not breached that level since the taper tantrum.

United States - Volatility Returns

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Continued decorrelation of the front end

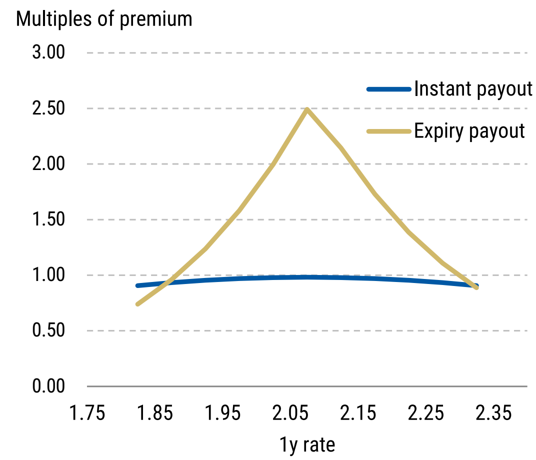
Front-end rates in the US have come alive after a long hiatus. We finally saw some action as the front end of the curve oscillated on Fed chair speculation. A well subscribed trade in the market has been Reds / Greens Eurodollar steepeners, which has performed well over the last two weeks as the Z8-Z9 spread steepened almost 10bp (Exhibit 64). However, depending on who ends up being the Fed chair, we think that spread could either steepen further or flatten back in a reversal. To position for the move in either direction, we like owning a decorrelation "wedge" structure.

To construct this wedge, we sell a 1y swaption payer expiring in December 2018 struck at-the-money-forward. Against this, we buy a strip of four 3-month caplets expiring in December 2018, March 2019, June 2019 and September 2019, all struck at their respective forwards rates. The December 2018 1y rate should be an average of the four 3-month caplet rates. However, if the front caplet and back caplet rates move in opposite directions, this wedge will perform well. Also, if rates just roll up to the forwards at expiry, this structure should carry roughly 2.5x (Exhibit 65). This trade is also long forward vol on the back caplets. At the expiry of the payer swaption, the structure is still long 3-month, 6-month and 9-month vol. The most this trade can lose is the initial premium of 3.25c.

Exhibit 64: EDZ8 / EDZ9 spread

Source: Morgan Stanley Research

Exhibit 65: Wedge payoff



Source: Morgan Stanley Research

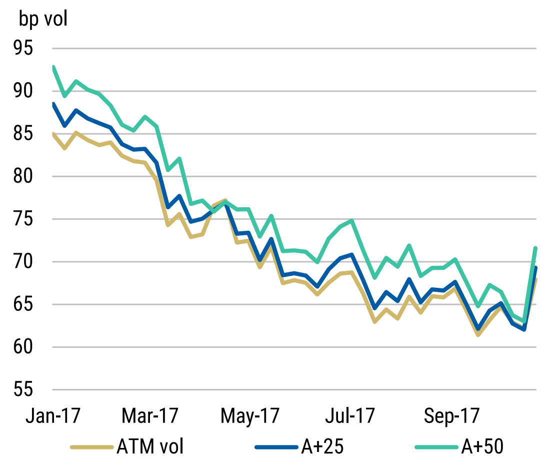
Trade idea: Sell Dec18 into 1y Payer ATMF vs.
Buy Dec18 into 3m Caplet ATMF
Buy Mar19 into 3m Caplet ATMF
Buy Jun19 into 3m Caplet ATMF
Buy Sep19 into 3m Caplet ATMF
Net premium = 3.25c

Sell upper-right vol and payer skew

As vols repriced higher this week, payer skew richened quite a bit relative to receivers. We haven't witnessed this lognormal behavior in a while and we think it's worth fading. On the macro front, we think we are near the peak of optimism for tax reform. We've witnessed these moves before and things never seem to play out as smoothly as the market hopes.

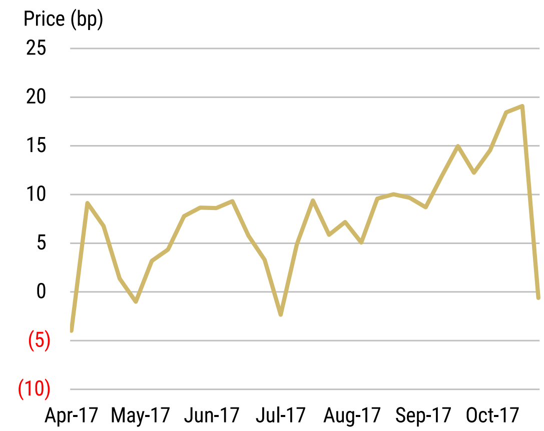
Exhibit 66shows the move in 6m10y vol for ATM, A+25 and A+50 relative to recent history. High strikes are now at the richest level we've seen over the last 6 months. This should present a good opportunity to enter into a payer ladder. We buy a payer struck ATMF versus selling a payer struck ATMF + 15bp and another payer struck ATMF + 30bp. The net cost of the structure is 0. Exhibit 67shows the recent history of this structure. The risk to this trade, of course, is a rapid sustained sell-off on 10y rates. The upper breakeven rate level of this trade is 2.95% on the 10y. We haven't breached that level since the taper tantrum.

Exhibit 66: 6m10y payer skew has richened



Source: Morgan Stanley Research

Exhibit 67: Net price of ladder



Source: Morgan Stanley Research

Trade idea: Buy 6m10y Payer ATMF vs.
Sell 6m10y Payer ATMF + 15bp
Sell 6m10y Payer ATMF + 30bp
Net premium = 0 cost

Supply

In the US, new 2y, 5y, 7y USTs were issued for a total of $88bn. These will settle in the next week when $7bn coupons and $91bn redemptions will be paid. **In the euro area,** we expect €20bn nominal supply (from Spain, France, Italy) against €12bn of coupons and €32bn of redemptions (from Spain, Italy). Average gross nominal supply for the same week of the past three years is €17bn. **In the UK,** there will be no nominal supply or cash coming into the market. **In Japan,** 10y JGB will be issued for ¥2.3trn, against no cashflows. **In Canada,** 2y GCAN will be issued for $3.6bn against $9bn redemptions. **In Australia,** ACGB 3.25% Apr-29 and ACGB 2% Dec-21 will be issued for $500mn each, alongwith ACGB 2.25% May-28 for $900mn, against no cash flow. **In New Zealand,** there will be no nominal supply or cash coming into the market.

Exhibit 68: Sovereign supply calendar

Monday	Tuesday	Wednesday	Thursday	Friday
30-Oct	**31-Oct**	**1-Nov**	**2-Nov**	**3-Nov**
ITA: BTP Auction, €7-8.5bn New CCTeu Floater% Apr 2025, €3-3.5bn; BTP 0.9% Aug 2022 Tap, €2-2.5bn; BTP 2.05% Aug 2027 Tap, €2-2.5bn AUS: ACGB 3.25% Apr 2029 Tap, $500mn		JPN: 10y JGB Auction, ¥2300bn AUS: ACGB 2.25% May 2028 Tap, $900mn	SPA: SPGB Auction, €4-4.5bn* SPGB 0.45% Oct 2022, SPGB 1.45% Oct 2027, SPGB 4.9% Jul 2040, SPGBei 0.65% Nov 2027 FRA: Long term OAT Tap, €7-8.5bn OAT 0.75% May 2028, €3.5bn*; OAT 1.5% May 2031, €2.5bn*; OAT 2% May 2048, €2bn* CAN: 2y GCAN, $3.6bn	AUS: ACGB 2% Dec 2021 Tap, $500mn
6-Nov	**7-Nov**	**8-Nov**	**9-Nov**	**10-Nov**
	AUT: RAGB Auction, €1-1.5bn* JPN: Auction for Enhanced-liquidity, ¥500bn* US: New 3y UST, $24bn* GER: I/L Auction, €0.5bn*	ITA: BTP Announcement GER: OBL Oct 2022 Tap, €3bn US: New 10y UST, $23bn* CAN: 5y GCAN, $3.9bn* AUS: ACGB Auction $800mn*	UK: UKT 0.75% Gilt 2023 Tap, £2.5bn* JPN: 30y JGB Auction, ¥800bn* US: New 30y UST, $15bn* IRE: IRISH Bond auction, $1bn*	AUS: ACGB Auction $800mn* NZ: NZGB I/L 2.5% Sep 2040, $100mn
13-Nov	**14-Nov**	**15-Nov**	**16-Nov**	**17-Nov**
ITA: BTP Auction	GER: New BKO Dec 2019, €5bn JPN: 5y JGB Auction, ¥2200bn* NETH: DSL 0.75% July 2027 Tap, €2-3bn* AUS: ACGB I/L Auction, $150mn*	GER: DBR Aug 2027 Tap, €3bn CAN: 3y GCAN, $3.3bn* AUS: ACGB Auction $800mn*	SPA: SPGB Auction FRA: Medium term auction FRA: Index linked auction UK: UKT 1.25% Gilt 2027 Tap, £2.5bn* JPN: 20y JGB Auction, ¥1000bn* US: 10y TIPS Re-opening, $11bn* NZ: NZGB 2.75% Apr 2025 Tap, $200mn	AUS: ACGB Auction $800mn*

Source: Morgan Stanley Research, Treasuries
* Morgan Stanley estimate. ** Auction date not announced by the Treasury

We gratefully acknowledge the contribution of Asmita Jimulia to this section of the report.

Bond Market Indicators

Latest readings

Exhibit 69: Morgan Stanley Bond Market Indicators - BMI(10)

	Vol Adj. Carry	Momentum	Equity Markets	Business Cycle	FX/Rates	Average	Overall
UST	-1.8 (-2.5)	-5.1 (-7.8)	0.0 (-1.6)	-6.3 (-6.2)	0.8 (1.1)	-2.5 (-3.4)	**-2.5 (0.0)**
DBR	5.4 (4.3)	4.7 (0.7)	-0.3 (-1.4)	-3.0 (0.7)	-4.6 (-7.4)	0.4 (-0.6)	**0.0 (0.0)**
UKT	4.2 (3.4)	-1.9 (-9.0)	-0.4 (0.2)	-2.2 (-2.2)	3.4 (0.7)	0.6 (-1.4)	**0.0 (0.0)**
JGB	0.2 (0.2)	-6.4 (-2.5)	-3.6 (-4.4)	-4.0 (-2.0)	-0.4 (2.8)	-2.8 (-1.2)	**-2.8 (0.0)**
ACGB	9.2 (8.5)	-3.1 (-5.8)	-1.1 (-2.0)	-0.9 (-2.9)	-2.1 (5.0)	0.4 (0.6)	**0.0 (0.0)**
NZGB	7.8 (7.0)	2.7 (-4.1)	-0.6 (-1.5)	-3.0 (-6.1)	6.3 (3.5)	2.6 (-0.2)	**0.0 (0.0)**
CAN	-5.1 (-5.9)	-1.6 (-7.8)	-2.2 (-3.0)	3.3 (3.3)	-5.2 (-7.0)	-2.2 (-4.1)	**-2.2 (0.0)**

Source: Morgan Stanley Research
Note: Positive # = long duration; Negative # = short duration, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.5

Exhibit 70: Morgan Stanley Bond Market Indicators - BMI(2)

	Vol Adj. Carry	Momentum	Equity Markets	Business Cycle	FX/Rates	Average	Overall
UST	7.2 (5.1)	-9.6 (-9.7)	0.0 (-1.6)	-6.3 (-6.2)	1.5 (1.1)	-1.4 (-2.3)	**0.0 (0.0)**
DBR	-5.2 (-5.7)	4.7 (6.2)	-0.3 (-1.4)	-3.0 (0.7)	-2.4 (-3.3)	-1.2 (-0.7)	**0.0 (0.0)**
UKT	5.4 (4.4)	-5.4 (-9.2)	-0.4 (0.2)	-2.2 (-2.2)	2.9 (3.1)	0.1 (-0.7)	**0.0 (0.0)**
JGB	-4.9 (-5.4)	5.6 (8.4)	-3.6 (-4.4)	-4.0 (-2.0)	-4.0 (-2.3)	-2.2 (-1.1)	**0.0 (0.0)**
ACGB	7.9 (8.7)	-5.2 (-5.4)	-1.1 (-2.0)	-0.9 (-2.9)	-2.2 (1.0)	-0.3 (-0.1)	**0.0 (0.0)**
NZGB	4.5 (4.6)	2.5 (3.1)	-0.6 (-1.5)	-3.0 (-6.1)	4.1 (2.7)	1.5 (0.6)	**0.0 (0.0)**
CAN	0.2 (0.6)	-3.4 (-7.2)	-2.2 (-3.0)	3.3 (3.3)	-1.3 (-3.5)	-0.7 (-2.0)	**0.0 (0.0)**

Source: Morgan Stanley Research
Note: Positive # = long duration; Negative # = short duration, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.5

Exhibit 71: Morgan Stanley Bond Market Indicators - xBMIs

	DBR/UKT	DBR/JGB	DBR/UST	UKT/JGB	UKT/UST	JGB/UST
Overall	**0.0 (0.0)**	**0.0 (0.0)**	**0.0 (0.0)**	**3.1 (0.0)**	**0.0 (0.0)**	**0.0 (2.5)**
Average xBMI	-4.4 (-4.2)	-0.5 (-3.0)	-0.3 (-0.7)	3.1 (0.2)	2.0 (3.4)	-0.8 (2.5)
Combined BMI differential	0.0 (0.0)	2.8 (0.0)	2.5 (3.4)	2.8 (0.0)	2.5 (3.4)	-0.4 (3.4)
FX/Rates	-8.8 (-8.4)	-3.8 (-5.9)	-3.0 (-4.9)	3.3 (0.5)	1.5 (3.5)	-1.2 (1.6)
	ACGB/NZGB	**ACGB/CAN**	**ACGB/UST**	**NZGB/CAN**	**NZGB/UST**	**CAN/UST**
Overall	**-2.4 (0.0)**	**0.0 (3.9)**	**0.0 (3.1)**	**4.5 (5.1)**	**2.6 (0.0)**	**0.0 (0.0)**
Average xBMI	-2.4 (0)	1.1 (3.9)	0.1 (3.1)	4.5 (5.1)	0.6 (1.8)	-0.2 (-1.2)
Combined BMI differential	-2.6 (0.0)	2.2 (4.1)	2.5 (3.4)	4.8 (4.1)	5.1 (3.4)	0.3 (-0.7)
FX/Rates	-2.2 (0)	0 (3.8)	-2.2 (2.7)	4.1 (6.1)	-3.9 (0.1)	-0.7 (-1.8)

Source: Morgan Stanley Research
Note: Positive # = long cross market spreads; Negative # = short cross market spread, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -15 and +15, Signal is calculated as the average of Combined BMI differential and the FX component. Signal is set to zero if abs(Signal)<=2 and/or its has a sign different from the Combined BMI differential

How to read the xBMIs

The "FX/Rates" row displays the FX/rates relationship signal. The "Combined BMI differential" row displays the difference between the relevant BMI(10) signals after having applied the signal strength check, i.e., abs(signal) >= 1.5. The "Average xBMI" row displays the average of the "FX/Rates" and "Combined BMI differential" rows. And the "Overall" score requires that the sign of the "Average xBMI" signal match the sign of the "Combined BMI differential" signal and be ≥ the absolute value of 2.

Exhibit 72: Morgan Stanley Euro Sovereign Bond Market Indicators - eBMI

	Business Cycle Surprises	Momentum	Vol. Adj. Carry	Supply	Risky Assets	Overall
Periphery vs. Core	2.9 (1.4)	-0.1 (0.6)	10.0 (10.0)	3.1 (-7.9)	0 (0.1)	**3.2 (0.8)**
Semi-Core vs. Core	1.2 (-1.4)	5.9 (5.8)	5.5 (5.9)	-5.4 (7.7)	1.0 (-1.3)	**1.6 (3.4)**
Periphery vs. Semi-Core	0.9 (1.4)	-3.0 (-2.6)	2.2 (2.0)	4.2 (-7.8)	-0.5 (0.7)	**1.5 (-2.5)**

Source: Morgan Stanley Research
Note: Positive # = long spreads; Negative # = short spreads, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10.

Exhibit 73: Morgan Stanley Inflation Bond Market Indicators - iBMI

	Crude Oil	Momentum	Equities	Value	Average	Overall
TIPS	3.3 (2.8)	2.6 (5.5)	0.3 (1.2)	-1.9 (-1.3)	1.1 (2.1)	**1.1 (2.1)**
UKTi	3.9 (2.6)	6.7 (7.2)	0.5 (0.2)	-4.8 (-4.9)	1.6 (1.3)	**1.6 (1.3)**
HICPxT	4.0 (3.2)	7.5 (4.6)	0.2 (0.8)	-6.2 (-6.2)	1.4 (0.0)	**1.4 (0.0)**
JGBi	4.2 (3.8)	4.8 (3.1)	1.4 (1.8)	3.5 (3.5)	3.5 (3.1)	**3.5 (3.1)**

Source: Morgan Stanley Research
Note: Positive # = long inflation breakeven; Negative # = short inflation breakeven, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.0

Performance history

Exhibit 74: Morgan Stanley Bond Market Indicators - BMI(10) - Performance history

	UST	DBR	UKT	JGB	ACGB	NZGB	CAN
1-Week Return	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
YTD Return	-4.2%	-0.8%	-9.2%	0.7%	-4.9%	2.1%	-1.8%
1-Year Return	0.1%	2.2%	-11.5%	6.8%	-5.8%	5.1%	12.6%
1-Year Return Vol	0.17	0.13	0.18	0.12	0.12	0.04	0.22
1-Year Sharpe Ratio	0.00	0.17	-0.63	0.56	-0.48	1.22	0.57
1-Year Hit Ratio	50%	47%	43%	41%	29%	100%	55%

Source: Morgan Stanley Research

Exhibit 75: Morgan Stanley Bond Market Indicators - BMI(2) - Performance history

	UST	DBR	UKT	JGB	ACGB	NZGB	CAN
1-Week Return	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
YTD Return	0.1%	-0.9%	-0.7%	-0.5%	0.3%	0.3%	-0.2%
1-Year Return	0.1%	-0.9%	-0.9%	-0.3%	0.2%	0.3%	0.9%
1-Year Return Vol	0.8%	1.2%	1.9%	0.7%	1.5%	1.7%	3.1%
1-Year Sharpe Ratio	0.17	-0.72	-0.45	-0.41	0.14	0.15	0.30
1-Year Hit Ratio	50%	35%	36%	38%	50%	100%	50%

Source: Morgan Stanley Research

Exhibit 76: Morgan Stanley Bond Market Indicators - xBMI - Performance history

	DBR/UKT	DBR/JGB	DBR/UST	UKT/JGB	UKT/UST	JGB/UST
Info ratio	-0.68	4.89	0.04	-0.38	1.89	0.96
Hit ratio	42%	91%	50%	61%	48%	50%
Non-Zero	50%	21%	35%	44%	44%	38%
	ACGB/NZGB	**ACGB/CAN**	**ACGB/UST**	**NZGB/CAN**	**NZGB/UST**	**CAN/UST**
Info ratio	-0.15	2.47	4.89	-0.12	0.90	1.06
Hit ratio	38%	82%	69%	52%	71%	37%
Non-Zero	40%	42%	25%	40%	13%	37%

Source: Morgan Stanley Research

Exhibit 77: Morgan Stanley Bond Market Indicators - eBMI - Performance history

	Periphery vs. Core	Semi-Core vs. Core	Periphery vs. Semi-Core
1-Week Return	0.3%	0.2%	-0.8%
1-Year Return	3.1%	-6.6%	4.8%
1-Year Return Vol	8.4%	5.0%	6.0%
1-Year Sharpe Ratio	0.37	-1.32	0.80
1-Year Hit Ratio	55.8%	48.1%	53.8%

Source: Morgan Stanley Research

Exhibit 78: Morgan Stanley Bond Market Indicators - iBMI - Performance history

	TIPS	UKTi	HICPxT	JGBi
1-week Return	0.4%	0.1%	0.0%	0.1%
YTD Return	3.1%	0.4%	0.8%	0.0%
1-year return	5.0%	-0.1%	0.3%	0.7%
1-Year Return Vol	2.8%	2.1%	1.7%	1.1%
1-Year Sharpe ratio	1.78	-0.05	0.18	0.62
1-Year Hit ratio	61.8%	52.0%	56.0%	47.8%

Source: Morgan Stanley Research

In Case You Missed It

US Economics & Rates Strategy: FOMC Preview: Monitoring Inflation Developments Closely

25 October 2017

At the Oct 31-Nov 1 meeting, we expect the Fed to recognize the economy is sound despite hurricane activity, while maintaining its close watch on the incoming data on inflation. We expect the Fed to next raise rates at its December meeting, resuming its previously established gradual pace.

ECB Preview: Recalibrating the QE Cutback

23 October 2017

The ECB will likely announce a recalibration of its asset purchases at the upcoming meeting. We've recalibrated our forecast too. The most likely scenario is now a monthly scaleback to €30 billion from January, for nine months.

Global Interest Rate Strategist: Finally Some Fiscal Stimulus?

20 October 2017

Yields rose and curves steepened as US policymakers reignited hopes for fiscal stimulus. We see the steepening as an opportunity to add to strategic curve flatteners. Our Bond Market Indicators remain neutral on duration, given diverse factor signals across the major bond markets.

US Public Policy Brief: Tax Reform & Deficits: Moderate? or Raise the Stakes?

16 October 2017

Will tax reform blow out the deficit? We think not, given Senate constraints & risks to our base case skewed toward legislative failure. Yet while this base case isn't a game-changer, we remain vigilant for certain signposts that, if seen, set up bond market drama: an 'all or none' deficit choice.

Global Interest Rate Strategist: Waiting for Reflation with Flatteners

13 October 2017

ECB Vice President Constâncio said it best: global reflation hasn't happened yet. But better-than-expected growth has kept central banks on the path toward removing extraordinary accommodation. Until reflation actually happens, the removal of accommodation will flatten yield curves.

European Interest Rate Strategist: Push and Pull

6 October 2017

The October ECB is likely to result in lower for longer, while the November MPC is likely to deliver more hikes than previously expected. We like cash over swap in euro, and shift neutral in the UK.

Forecasts

For details on the macro narratives surrounding our forecasts below, please see Global Macro Mid-Year Outlook: Transitioning to Self-Sustaining Growth, June 4, 2017, and Global Strategy Mid-Year Outlook: Climbing the Last Wall of Worry, June 4, 2017. We last updated our forecasts on June 4, 2017.

Exhibit 79: Morgan Stanley sovereign 10-year yield bull, base, and bear case forecasts

	Bull					Base					Bear				
	Oct 26	3Q17	4Q17	1Q18	2Q18	Oct 26	3Q17	4Q17	1Q18	2Q18	Oct 26	3Q17	4Q17	1Q18	2Q18
US	2.46	2.30	2.20	2.00	1.75	2.46	2.50	2.45	2.45	2.40	2.46	2.80	2.85	2.85	2.95
Germany	0.42	0.20	0.00	-0.30	-0.30	0.42	0.50	0.60	0.70	0.80	0.42	0.70	1.00	1.25	1.50
Japan	0.07	0.03	0.03	0.00	0.03	0.07	0.05	0.08	0.20	0.20	0.07	0.08	0.20	0.25	0.30
UK	1.38	0.80	0.50	0.50	0.50	1.38	1.10	1.00	1.00	0.95	1.38	1.30	1.75	1.90	2.00
Australia	2.75	2.56	2.38	2.09	1.87	2.75	2.75	2.60	2.55	2.45	2.75	2.94	3.00	3.05	3.13
Austria*	17	22	22	25	25	17	27	27	30	30	17	30	32	35	35
Netherlands*	10	15	15	20	25	10	20	20	25	27	10	25	25	30	35
France*	41	40	40	45	50	41	50	50	60	60	41	50	60	75	80
Belgium*	25	30	35	40	45	25	40	45	50	55	25	45	50	60	65
Ireland*	22	50	50	50	55	22	55	55	60	65	22	75	75	90	95
Spain*	120	110	110	125	130	120	120	125	135	140	120	140	150	190	200
Italy*	157	160	165	170	180	157	180	190	205	215	157	195	220	280	290
Portugal*	181	255	250	260	270	181	265	270	280	300	181	290	300	310	330

Source: Morgan Stanley Research
* Yield spread to German Bunds

Exhibit 80: Morgan Stanley sovereign 2-year, 5-year, and 10-year yield base case forecasts

	2Y					5Y					10Y				
	Oct 26	3Q17	4Q17	1Q18	2Q18	Oct 26	3Q17	4Q17	1Q18	2Q18	Oct 26	3Q17	4Q17	1Q18	2Q18
US	1.61	1.50	1.50	1.60	1.65	2.08	2.05	2.00	2.05	2.05	2.46	2.50	2.45	2.45	2.40
Germany	-0.74	-0.65	-0.60	-0.55	-0.50	-0.32	-0.30	-0.15	-0.05	0.20	0.42	0.50	0.60	0.70	0.80
Japan	-0.14	-0.18	-0.18	-0.10	-0.10	-0.09	-0.13	-0.13	-0.05	-0.05	0.07	0.05	0.08	0.20	0.20
UK	0.48	0.10	0.10	0.10	0.10	0.83	0.45	0.40	0.40	0.35	1.38	1.10	1.00	1.00	0.95
Australia	1.86	1.75	1.70	1.65	1.60	2.24	2.25	2.15	2.10	2.05	2.75	2.75	2.60	2.55	2.45
Austria*	13	12	12	15	15	11	15	15	18	18	17	27	27	30	30
Netherlands*	2	10	10	13	15	-5	5	5	10	12	10	20	20	25	27
France*	17	25	20	25	25	26	30	30	40	40	41	50	50	60	60
Belgium*	14	15	20	20	25	8	20	25	25	30	25	40	45	50	55
Ireland*	19	30	25	30	35	28	30	30	35	40	22	55	55	60	65
Spain*	45	45	50	60	65	64	70	80	90	95	120	120	125	135	140
Italy*	50	60	80	85	85	103	130	145	160	170	157	180	190	205	215
Portugal*	62	80	85	90	100	117	185	175	180	200	181	265	270	280	300

Source: Morgan Stanley Research
* Yield spread to German Bunds

Trade Ideas

Below you will find a list of our current trade ideas, entry levels, entry dates, rationales, and risks.

Duration and Curves

Trade	Entry Level	Entry Date	Rationale	Risks
Long OBL Jul-22 vs BKO Sep-19 and DBR Aug-27 on 2s5s10s fly	-31bp	13-Oct-17	The belly of the curve can continue to outperform as both term premium and rates expectations should stay anchored. The trade carries 7bp/quarter.	US tax reform chances higher than expected and the next Fed chair appointment more hawkish than expected
Long 10y Bund ASW	0.460%	29-Sep-17	QE lasting longer should keep duration and collateral scarcity in the price on Bund vs swap.	The ECB tapers faster than market expected.
Enter 2s30s UST curve flatteners	138bp	15-Sep-17	The hawkish tone regarding the pace of hikes from FOMC members despite the string of disappointing inflation data as well as the lowering of the longer-run dot in the FOMC's SEP supports the flattener.	Progress on the fiscal front above expectations would lead to bear steepening of the yield curve.
Long Jan-45 Jul-65 vs. Dec-55 Gilts	-9bp	6-May-16	Position has positive carry roll and convexity pick-up	Idiosyncratic price action and declining volatility.
Long Jan-60 vs. Dec-55 Gilt	0.4bp	29-May-15	We think the convexity value of ultra longs is underpriced	Idiosyncratic price action and declining volatility.
Enter JGB 20s40s flattener	46bp	21-Oct-17	The level looks attractive, and 40y JGB will be supported by lifers on any sell-off.	Banks start to buy 20y JGBs aggressively and dovish person named Fed chair.

Sovereigns and Supply

Trade	Entry Level	Entry Date	Rationale	Risks
Long BTP Aug-22 and SPGB Apr-22 on 30:70 weight vs short FRTR Mar-23 and OBL Oct-22 on 25:75 weight at 66bp	66bp	27-Oct-17	With the tail risk even of eurozone breakup risk further diminished and ECB's easing support for longer, we recommend to long peripheral spreads vs core/semi-core sovereigns.	Widening in peripheral spreads related to political risk in Italy and/or a market getting increasingly concerned about the downside risks to Spanish growth.
Buy RAGB 2117 vs Sell RAGB 2062	30bp	15-Sep-17	Taking forward curve shape and convexity into account, the 100y looks cheap vs the 50y. Moreover, post-syndication price action is generally followed by a richening on the newly issued bond.	50y point of the curve outperforms significantly.
Long BTP Apr-22 vs. short BTP Mar-47	250	1-Sep-17	The curve has already been steepening, which could continue with potential supply pressure. The curve would also continue to steepen if BTP yield sells off further and it carries 11bp/quarter.	Supply remains heavily skewed towards shorter maturity and/or political risk flare up significantly.
Buy Gilt 1.5% 07/2047 at 1.79% and sell Gilt 1.75% 09/2037 at 1.78% vs swaps	30bp/30bp	5-May-17	Relative value trade based on Z-spread/yield to maturity vs duration.	Majority of investors to continue to value the bonds off surrounding maturity issues and other idiosyncratic pricing issues.
Long Low Coupon BTPs vs short High Coupon BTPs portfolio	24bp	3-Feb-17	To protect against rising credit premium in Italy.	Political risk subsides.
Long Nov-47 vs. Dec-46 UKT	-4bp	23-Sep-16	1H47s offer better value due to their longer duration.	Supply optically rich.

Inflation

Trade	Entry Level	Entry Date	Rationale	Risks
Receive 1y1y US CPI Swap	192bp	20-Oct-17	Potential success of a large fiscal stimulus package will likely provide a short term boost to spending that supports near term CPI prints.	Failure of the fiscal stimulus drive would reduce hopes of a pickup in CPI prints.
Short OATi Jul-23s vs. OATei Jul-24s real yield	11bp	7-Sep-17	French inflation is much weaker than Euro inflation.	French inflation surprises to the upside.
10s30s HICPxT flattener	44bp	4-Aug-17	10y HICPxT is out of line on the curve.	Non-traditional inflation investors continue to keep 5y5y and 10y down.
Long Nov-47 UKTi vs. Nov-27 UKTi real yield	30bp	7-Jul-17	10y real yields remain rich, while the 30y sector has cheapened into the Nov-56s syndication.	The curve continues to steepen.
Long Apr-20 UKTi breakeven (versus Sep-20s)	289bp	13-Jun-17	Front-end cash breakevens trade fundamentally cheap versus our economists' and the market's pricing of front-end RPI fixings.	Realized inflation comes in much lower than expectations.
Long May-22 BTPei on a real yield basis	0.20%	4-Nov-16	BEIs price in a very subdued inflation outcome, our eBMIs turning more bullish on peripheral risk, carry roll is substantial.	The curve steepens.
3s6s US CPI swap curve steepener	1.75bp	7-Apr-17	We identify value in the CPI swap curve using PCA decomposition.	The 3s6s curve flattens.
10s30s RPI breakeven steepener	-1bp	29-Jul-16	We expect more hedging premium to be priced into the long end.	The curve remains flat.
Buy JGBi21 real yield	-46bp	8-Apr-16	JGB linkers have cheapened well beyond reasonable valuations.	Breakevens breach the deflation floor.
Buy JGBi17 breakeven	10-12bp	6-Mar-16	JGB linkers have cheapened well beyond reasonable valuations .	Breakevens breach the deflation floor.
Long Nov-19 SPGBei breakeven	0.29%	22-Feb-16	We see value in shorter-dated breakevens with at-the-money deflation floors.	Breakevens breach the deflation floor.
Long Apr-20 BTP Italia breakeven	-0.02%	22-Feb-16	We see value in shorter-dated breakevens with at-the-money deflation floors.	Market positioning is long breakevens.

Money Markets

Trade	Entry Level	Entry Date	Rationale	Risks
Short 1y1y FRA-OIS	22.5bp	13-Oct-17	We expect continued AUM flow into MMFs, which is likely to keep FRA-OIS spreads under pressure. Also, the trade rolls positively.	A bank funding crisis would lead to widening of FRA-OIS spreads. A risk-off move would also lead to widening. We recommend maintaining 5y swap spread wideners against the short FRA-OIS position to hedge some of that risk and further improve carry.
Sell 2y swap spreads	26bp	9-Aug-17	The market is not pricing in a sustained increase in T-bill issuance, which should put upward pressure on repo. Also, carry on 2y spread wideners continues to look unattractive relative to history given tight Libor-repo.	A risk-off move or failure by the Treasury to increase T-bill issuance over the medium-term horizon would lead to widening of 2y spreads.
Receive 6m6m USD/JPY Xccy basis	-47bp	9-Aug-17	Increased T-bill issuance and higher repo rates would drain excess reserves in the banking system and reduce access to USD funding by Japanese lifers.	A sharp drop in USDJPY could lead Japanese lifers to reduce their current FX hedges, which would lead to tightening of the Xccy basis.
Tibor-libor 2s10s flattener	0bp	7-Jul-17	Attractive carry and rolldown, and we expect Tibor-libor fixing spread not to tighten after Tibor reform	Tibor lower after Tibor reform; load hedge paying in the long end.
USDJPY basis Rec 7y	-59.5bp	15-Sep-17	Upcoming samurai issuance will likely push the long-end basis lower.	Yankee issuance continues, thereby tightening pressure on the long-end basis.

Receive 5y5y AUDUSD basis	35bp	21-Aug-17	10y point is supported by JGB repackage flow, and it also provides the attractive vol adjusted rolldown.	Reverse Kangaroo issuance increase further.

Derivatives

Trade	Entry Level	Entry Date	Rationale	Risks
USD: Buy a 6m10y 2.5% vs 2.65% and 2.80% payer ladder	0c	27-Oct-17	The bearish sentiment in the market and the rise in vol provide a good entry point and an attractive breakeven level at 2.95% for the 10y swap rate.	Appointment of hawkish Fed members or passage of a large stimulus package could lead to the market repricing a higher level of rates than 2.95% on the 10y swap leading to losses on the trade.
USD: Sell Dec18 > 1y ATMF Payer vs Buy Equivalent Caplets	3.5c	27-Oct-17	Expectation of decorrelation in quarterly rates as expectations for hiking steepen or flatten would lead to profit on the trade.	The net premium on the trade would be lost if there is no repricing of the current hiking path.
USD: Sell $1bn 1m2s30s ATM curve straddles vs buy $66.6mm 1m10y ATM straddles	0c	20-Oct-17	The impact of fiscal policy progress on the slope of the yield curve is likely to be offset by hawkish Fed rhetoric, which would anchor the slope of the curve on a terminal basis relative to the level of the 10y swap rate.	Strong receiving demand in the back end by the LDI community could lead to strong flattening of the curve that outpaces the rally in 10y yields.
GBP: Long 3m6m1y 0.65/0.8/0.95 fly	4.5bp	20-Oct-17	We interpret MPC guidance of "gradual and limited" as a pace of one hike every six months (i.e., November 17 and May 18), but then we expect growth to slow further as the UK approaches Brexit, putting rates back on hold until 2H19.	Significantly less dovish/hawkish BOE than market expects.
USD: short FNCL 3s MBS vs rate hedge	100	13-Oct-17	Fed balance sheet unwind would increase the supply of MBS in private hands, which is likely to widen OAS. Maintaining the long vol exposure on the MBS provides potential for further upside if implied and/or realized vol picks up.	If MBS spreads fail to widen and vol fails to increase, the trade loses due to negative carry. It could lose even more if MBS spreads tighten or implied vol on long expiry swaptions drops.
EUR: 3m30y ATMF/+10bp/+17bp payor ladder at zero cost	0c	29-Sep-17	To position for higher rates and contained volatility while benefitting from a reversal in the price action. In addition, the trade rolls down positively.	Substantial sell-off in rates (>27bp) and/or a substantial upward move in implied volatility.
JPY: Rec 3s7s15s fly	-10.825bp	29-Sep-17	Fading the cheapness on the belly of the curve.	The curve massively bull-flattens on the back of an unexpected risk-off scenario.
JPY: 1m20 Bullish Risk Reversal (0.6975% vs 0.8%) at zerocost (LCH ref)	0c	11-Oct-17	Preparing for the post-election unwnding of paying long-end.	The long-end swap paying more on back of further speculation.
AUD: Pay 3y EFP	0.625bp	29-Sep-17	3y EFP have reached historical lows at close to 0. We see little fundamental reason for this being the case, and our tactical framework suggests fading the move tighter.	The trade carries around -3.5bp until December expiry. The negative carry along with a continued sell-off in rates are risks to the trade.
USD: Buy 3m2y payer ATMF in 900mm vs sell 3m30y Payer ATMF +10bp in 100mm	0c	22-Sep-17	The lowering of the long-run FF dot in the FOMC's SEP is likely to lead to a rally in the long end, particularly if inflation data continues to disappoint. Meanwhile, the focus of the Fed on maintaining the pace of hikes as a tool to comabt easy financial conditions will lead to flattening of the curve.	Notable improvements in the long-term outlook for inflation and/or growth would lead to bear steepening of the yield curve and losses on the trade.
USD: Buy 3m caplet stuck at 1.5% vs sell caplets struck at 1.55% and 1.6% in 1x1x1 notionals	0.4c	22-Sep-17	The payout ratio if the Fed hikes 25bp in December is 3.5x of premium, which is higher than the payout ratio offered by simply paying the Dec 2017 OIS.	Widening of FRA-OIS spread could lead to losses on the trade, even if the Fed hikes. If the Fed does not hike in December 2017, premium is lost.

USD: Buy 1y7y 2.0% receiver vs sell 1y30y 2.2% receiver in 235mmx100mm	0c	15-Sep-17	Cheapening of vol on 7y tails relative to 30y tails offers an attractive vol pickup relative to recent history.	A large risk-off move in rates could lead to bull flattening of the 7s30s curve leading to losses on the trade.
AUD: Buy 3m1y ATMF receiver vs. sell 2x 3m1y ATMF-7bp receiver vs. buy 3m1y ATMF-14bp	1.4c	15-Sep-17	Our inclination is to extract the re-emerged carry via receiver structures that are protected against sell-offs on a terminal basis.	1y expires above the current 3m1y rate, or below the current 3m1y rate less 14bp, in which case one would lose the premium spent.
RNZD: Rec Feb-18 RBNZ OIS vs. pay 1y1y	61bp	15-Sep-17	The rates market has priced in too much uncertainty relating to the elections, and we think the front end can steepen regardless of whether National or Labour win the election. FRA/OIS seasonally widens out of rolls.	An inconclusive election outcome as well as general risk-off moves (potentially related to increases in geopolitical tensions).
EUR: Long RXZ7 Nov-17 put option at 161.5 vs short RXZ7 Nov-17 at 164.5. for zero cost	0c	7-Sep-17	Valuations are demanding as yields are currently below levels touched when political risk was at its peak early in 2017. Furthermore, the structure expires one day after October ECB meeting, which is when we think it will announce tapering.	Yields continue to fall and/or implied volatility on put collapses, which is likely to happen if expectations for a taper fall to zero and/or economic data deteriorates significantly
JPY: Buy ATM 10y10y Receiver	417bp	1-Sep-17	The rolldown on the trade is positive and a risk-off move is likely to lead to bull flattening of the yield curve and support to 10y10y vol due to Bermudan option vega hedging.	A sell-off in JPY rates associated with selling of vega due to Bermudan book hedging.
AUD: Receive AUD 5y5y vs. USD	82bp	1-Sep-17	Intermediate AU rates have broken out of the range vs. US rates, given strong global and domestic data. The curve should flatten if this dynamic continues, in our view. A positive xBMI signal lends further conviction to tactically fading the move wider.	Positive Australia data and/or the opposite for USD data (in particular US inflation), or a continued outsized widening of AUD FRA/OIS vs. USD.
AUD: Buy AUD 3m10y ATMF receiver vs. sell USD ATMF-1bp receiver for zero cost	0	1-Sep-17	Intermediate AU rates have broken out of the range vs. US rates, given strong global and domestic data. The curve should flatten if this dynamic continues, in our view. A positive xBMI signal lends further conviction to tactically fading the move wider.	Similar to the 5y5y cross-market trade above, with negative P&L if the US rates expires further south vs. the strike than the AUD receiver, in which case losses are theoretically unlimited.
NZD: Receive NZD 5y5y	3.72	11-Aug-17	Upcoming elections, governor change at the RBNZ and the relatively low neutral rate estimates favour long-end received positions. Attractive RV and a moderately bullish BMI signal look tactically favourable.	Risks include a reversal of the recent risk-off move across macro markets, a clear National party win in the election and a stronger than expected 3Q inflation print.
USD: Buy 5.1x 5y1y Receiver ATMF vs sell 1x 5y5y receiver ATMF	31bp	4-Aug-17	The vol on 5y1y is almost the same as that on 5y5y despite 5y1y having higher realized vol. The trade is long vega without much theta decay.	The risk is a continued drop in vol, which would incentivize selling the 5y1y point given the steep expiry curve for 1y tails.
USD: Buy 5y10y ATMF / ATMF-100 receiver spread in 2x notional vs sell a 5y30y ATMF / ATMF -50 receiver spread in 1x notional	205c	14-Jul-17	Longer NC periods on callable issuance will pressure 5y30y vol more than 5y10y, and the trade is long vol at a historically low entry point.	A further drop in vol would lead to losses on the trade. A sell-off in rates would lead to delta losses, so we suggest delta hedging the trade at initiation.
USD: Sell the ATMF stike in a ATMF/ATMF-75/ATMF-125 5y10y receiver fly in 1x/2.45/1x notional	0c	14-Jul-17	The entry point is close to multi-year lows and the trade gets longer vega as rates rally, which is likely to benefit from dealers dVega/dHedging.	A drop in vol is the main risk to the trade.

USD: Buy 9x 6m2s10s cap and 4.6x 6m2y payer vs sell 1x 6m10y payer all struck ATMF	40bp mid	7-Jul-17	Historically cheap entry point and limited downside make the trade a good way to position for decorrelation of 2y and 10y rates.	Premium would be lost if the 2s10s curve rolls to the forward or if rates move significantly without an associated steepening or flattening.
USD: Buy 1y7y receiver fly with strikes 2.5 / 2.0 / 1.6	88c	7-Jul-17	The breakeven range on the 7y rate is approximately 1.65% to 2.42%, which seems pretty wide relative to the realized moves over the past few years.	A large move in 7y rates in 1-year would lead to loss of part or all premium.
GBP: Jun18 Future Call Fly (99.625/99.75/99.875)	2c	16-Jun-17	We think current market pricing for the first hike is exaggerated given the softness of economic fundamentals in the UK and would like to take advantage of it.	The risk of this trade is that BOE hike or cut rates, in which case the premium is lost.
GBP: Jun18 Future Put Ladder (99.625/99.5/99.375)	-1.2c	16-Jun-17	We think current market pricing for the first hike is exaggerated given the softness of economic fundamentals in the UK and would like to take advantage of it but also profit in case of a hike in the next 12 months.	The risk to trade is that BOE hikes more than 2 times in the next 12 months. The potential loss is unlimited.
USD: Buy 1.475x ATMF 2y30y vs sell 1x 5y30y ATMF payers	0c	16-Jun-17	Extension of no-call periods on Formosa callables is likely to increase pressure on the 5y30y point, while owning 2y30y provides upside if vol is bid.	If vol continues to drop, the 2y30y point is likely to suffer more than the 5y30y point given their historical correlation.
USD: Buy 1.4x 6m10s30s vs sell 1x 1y10s30s ATMF curve caps	0bp	9-Jun-17	The 6m/1y 10s30s vol ratio is at the lows, offering an attractive entry point.	If the 10s30s curve steepens but becomes even steeper in forward space, the trade could lose money. Also, if 6m10s30s vol at expiry ends up very high, the trade could lose money.
USD: Buy 1y2y and midcurve 1y2y2y ATMF receivers and sell 1y4y ATMF receiver	3bp	2-Jun-17	As curve correlations approach 1, midcurve vols have cheapened to new lows. This trade presents an attractive risk/reward ratio if the 2s5s curve starts to realize volatility while rolling positively.	A large shift in rates upwards or downwards would lead to loss of premium.
USD: Enter 5y swap spread widener	7.25bp	16-Jun-17	High floater issuance reduces downward pressure on belly swap spreads, and potential for deregulation is a tailwind for across-the-curve spreads.	A major risk event would lead to a widening of front-end spreads and the spread curve could flatten.
USD: Buy 6m30y ATMF USD payors vs 6m10y ATMF+2 payors	0c	24-Mar-17	Shift in focus towards fiscal policy and regulatory reform are likely to increase volatility in long tails more than shorter tails. Ultra-long issuance is a catalyst.	Failure of de-regulation to materialize or the Fed turns dovish, which would reduce the demand on floaters.
EUR: Buy 5y10y ATMF EUR payor vs sell 5y2y ATMF payor at zero cost	0c	10-Mar-17	Attractive forward rate curve and implied volatility rolldown and good performance under gradual policy normalization scenario.	The risk to the trade is that the ECB hikes rates before terminating its quantitative asset purchase programme, leading to a bear flattening of the curve.
Buy $135mm 2y30y at 1927bp versus selling $100mm 5y30y ATM straddles for 2800bp in forward premium	198bp	13-Jan-17	Longer NC periods on callable issuance would pressure the long expiries.	A drop in issuance or failure of reported FSC regulation on NC period minimums to materialize.
Buy AUD 1y3y10y Forward vol	73nvol	12-Dec-16	Expiry curve on 10y tail is sharply downward sloping, providing attractive roll-up.	Vol generally reprices lower and/or expiry curve continues to invert.
Buy 1y2s10s curve cap	17bp	31-Mar-17	Implied correlation exceeds its historical relationship with the curve level, and focus on Fed's balance sheet and ultra-long bond issuance support steeper curves. Also, the trade rolls positively.	If the Fed is priced to hike aggressively, then the 2s10s curve might flatten beyond what's implied by the forward, and premium would be lost.

Buy 3m1s10s curve caps against 3m2s5s caps and 3m10s30s floors	0c	7-Apr-17	Implied realized ratio on 1s10s is favourable compared to the other legs of the trade and the focus on the Fed's balance sheet and ultra-long issuance is likely to steepen the yield curve.	If the market starts pricing in more than 2 hikes in 2018, the 2s5s curve could steepen considerably, and the trade would lose money if 1s10s does not steepen as much.
Buy 1y10y vs 1y2y ATMF vega weighted straddles	1.25 vol ratio	28-Apr-17	Steeper yield curves are likely to lead to outperformance of vol on longer tails.	Aggressive hiking by the Fed would lead to higher realized volatility in the front end, which is supportive of 1y2y vol.
Buy 5y30y Receiver spread ATMF vs ATMF-75bp Receiver	548bp	19-May-17	The rally removed vega from dealers' books, which supports a long vega position.	A significant improvement in economic conditions or issuance of ultra-long bonds could lead to a sell-off in 30y rates and loss of premium on the trade.
Buy 1y1y2y straddle ATMF vs Sell 2y2y straddle ATMF	0c	28-Jul-17	The 1y midcurve vol is trading below 2y vanilla vol and implying a correlation close to 1. The structure is 0 cost and long gamma, while having a superior decay profile to outright gamma trades.	Short-dated vols continue to drop from gamma selling.
Buy JL160 ASW vs 3m libor	2bp	10-Jun-17	Attractive positive carry/rolldown and good support from Japanese banks in 20y JGB.	JGB purchase reduction in long end, banks' loss-cutting of 20y JGBs in any big sell-off.

Exhibit 81: History of recommendations for Euro HICPxT 5y swap breakevens

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG	Gross P&L BP	Gross P&L US$K
Euro HICPxT 5y swap breakevens	5 year	Long Euro HICPxT 5y breakevens	2-Dec-16	0.0111	27-Jan-17	0.0137				EUSWIT5 Curncy		
Euro HICPxT 5y swap breakevens	5 year	Long 5y short 5y5y HICPxT breakeven curve flattener	27-Jan-17	1.37	3-Mar-17	1.2625				EUSWIT5 Curncy		
EUR Inflation Swap Forward 5Y5Y	5 year	Short 5Y5Y HICPxT (Was: Long 5y short 5y5y HICPxT breakeven curve flattener prior to 3-March)	27-Jan-17	0.017	7-Apr-17	0.0161				FWISEU55 Index		

Source: Morgan Stanley Research

Exhibit 82: History of recommendations for Euro HICPxT 10y swap breakevens

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG	Gross P&L BP	Gross P&L US$K
Euro HICPxT 5y swap breakevens	5Y	Long 10y on 5s10s15s HICPxT fly	28-Apr-17	1.175	04-Aug-17	1.31				EUSWI5 Curncy		
Euro HICPxT 10y swap breakevens	10Y	Long 10y on 5s10s15s HICPxT fly	28-Apr-17	1.4	04-Aug-17	1.45				EUSWI10 Curncy		
Euro HICPxT 15y swap breakevens	15Y	Long 10y on 5s10s15s HICPxT fly	28-Apr-17	1.617	04-Aug-17	1.63				EUSWI15 Curncy		

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG	Gross P&L BP	Gross P&L US$K
Euro HICPxT 5y swap breakevens	5Y	Long 10y on 5s10s15s HICPxT fly	28-Apr-17	1.175	04-Aug-17	1.31				EUSWI5 Curncy		
Euro HICPxT 10y swap breakevens	10Y	Long 10y on 5s10s15s HICPxT fly	28-Apr-17	1.4	04-Aug-17	1.45				EUSWI10 Curncy		
Euro HICPxT 15y swap breakevens	15Y	Long 10y on 5s10s15s HICPxT fly	28-Apr-17	1.617	04-Aug-17	1.63				EUSWI15 Curncy		

Source: Morgan Stanley Research

Exhibit 83: History of recommendations for BTP 5s30s steepener

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG	Gross P&L BP	Gross P&L US$K
BTPS 2.700 03/01/2047	1-Mar-47	Short BTP47s on BTP 27s47s67s fly at 43bp	07-Oct-16	2.47%	27-Jan-17	2.34%				IT0005162828		
BTPS 6.500 11/01/2027	11-Jan-27	Short BTP47s on BTP 27s47s67s fly at 43bp	07-Oct-16	1.52%	27-Jan-17	3.30%				IT0001174611		
BTPS 2.800 03/01/2067	1-Mar-67	Short BTP47s on BTP 27s47s67s fly at 43bp	07-Oct-16	2.93%	27-Jan-17	3.55%				IT0005217390		
BTPS 2.700 03/01/2047	1-Mar-47	Long BTP Mar-47 vs BTP Jun-27 100:75 weighted	23-Jun-17	3.03%	01-Sep-17	3.23%			100	IT0005162828		
BTPS 2.200 06/01/2027	1-Jun-27	Long BTP Mar-47 vs BTP Jun-27 100:75 weighted	23-Jun-17	1.90%	01-Sep-17	2.07%			75	IT0005240830		
BTPS 1.200 04/01/2022	1-Apr-22	Long 5y BTP vs OAT	02-Jun-17	0.92%	01-Sep-17	0.72%				IT0005244782		
FRTR 0.000 05/25/2022	25-May-22	Long 5y BTP vs OAT	02-Jun-17	-0.21%	01-Sep-17	-0.21%				FR0013219177		

Source: Morgan Stanley Research

Exhibit 84: History of recommendations for ATMF+3bp/ATMF+13bp payor spread financed via ATM-17bp receiver for approximately zero cost

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG	Gross P&L BP	Gross P&L US$K
EUR Swaption 3m30y ATMF payer	7-Dec-17	ATMF+3bp/ATMF+13bp payor spread financed via ATM-17bp	1-Sep-17	49.05	29-Sep-17	46.64				EUNEC30 Curncy		
EUR Swaption 3m30y ATMF payer	7-Dec-17	ATMF+3bp/ATMF+13bp payor spread financed via ATM-17bp	1-Sep-17	49.05	29-Sep-17	46.64				EUNEC30 Curncy		
EUR Swaption 3m30y ATMF - receiver	7-Dec-17	ATMF+3bp/ATMF+13bp payor spread financed via ATM-17bp	1-Sep-17	49.05	29-Sep-17	46.64				EUNEC30 Curncy		

Source: Morgan Stanley Research

Exhibit 85: History of recommendations for Long 10y Bund ASW

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG	Gross P&L BP	Gross P&L US$K
DBR 0.000 08/15/2026	15-Aug-26	Long German10y	1-Sep-16	-6.60	18-Nov-16	27.00				DE0001102408		
SPGB 1.300 10/31/2026	31-Oct-26	short 10y on Bono-Bund 5s10s30s fly	18-Nov-16	1.588	27-Jan-17	1.58				ES00000128H5		
SPGB 0.750 07/30/2021	30-Jul-21	short 10y on Bono-Bund 5s10s30s fly	18-Nov-16	0.246	27-Jan-17	0.32				ES00000128B8		
SPGB 2.900 10/31/2046	31-Oct-46	short 10y on Bono-Bund 5s10s30s fly	18-Nov-16	2.745	27-Jan-17	2.90				ES00000128C6		
DBR 0.000 08/15/2026	15-Aug-26	short 10y on Bono-Bund 5s10s30s fly	18-Nov-16	0.272	27-Jan-17	0.39				DE0001102408		
OBL 0.000 10/08/2021	8-Oct-21	short 10y on Bono-Bund 5s10s30s fly	18-Nov-16	-0.368	27-Jan-17	-0.37				DE0001141745		
DBR 2.500 08/15/2046	15-Aug-46	short 10y on Bono-Bund 5s10s30s fly	18-Nov-16	0.889	27-Jan-17	1.18				DE0001102341		
FRTR 3.250 05/25/2045	25-May-45	short OAT-Bund 10y20y forward spread	18-Nov-16	1.527	27-Jan-17	2.00				FR0011461037		
FRTR 0.25 11/25/2026	25-Nov-26	short OAT-Bund 10y20y forward spread	18-Nov-16	0.757	27-Jan-17	1.03				FR0013200813		
DBR 0.000 08/15/2026	15-Aug-26	short OAT-Bund 10y20y forward spread	18-Nov-16	0.27	27-Jan-17	0.39				DE0001102408		
DBR 2.500 08/15/2046	15-Aug-46	short OAT-Bund 10y20y forward spread	18-Nov-16	0.895	27-Jan-17	1.18				DE0001102341		

Source: Morgan Stanley Research

Definitions:

Buy/Long: The analyst expects the total or excess return (depending on the nature of the recommendation) of the instrument or issuer that is the subject of the investment recommendation to be positive over the relevant time period.

Sell/Short: The analyst expects the total or excess return (depending on the nature of the recommendation) of the instrument or issuer that is the subject of the investment recommendation to be negative over the relevant time period.

Selling Protection or Buying Risk: The analyst expects that the price of protection against the event occurring will decrease over the relevant time period.

Buying Protection or Selling Risk: The analyst expects the price of protection against the event occurring will increase over the relevant time period.

Pay: The analyst expects that over the specified time period the variable rate underlying the swap agreement that is the subject of the investment recommendation will increase.

Receive: The analyst expects that over the specified time period the variable rate underlying the swap agreement that is the subject of the investment recommendation will decrease.

Unless otherwise specified, the time frame for recommendations included in the Morgan Stanley Fixed Income Research reports is 1 - 3 months and the price of financial instruments mentioned in the recommendation is as at the date and time of publication of the recommendation.

When more than one issuer or instrument is included in a recommendation, analyst expects one part of the trade to outperform the other trade or combination of other trades included in the recommendation on a relative basis.

For important disclosures related to the proportion of all investment recommendations over the past 12 months that fit each of the categories defined above, and the proportion of issuers corresponding to each of those categories to which Morgan Stanley has supplied material services, please see the Morgan Stanley disclosure at https://ny.matrix.ms.com/eqr/article/webapp/9f0d1ff4-8748-11e6-902f-06aea91b8def?ch=rpint .

Event Calendar

Exhibit 86: Risk event calendar

Date (GMT)	Time (GMT)	Date (ET)	Time (ET)	Ccy	Event	Ref. Period
30-Oct	08:00	30-Oct	04:00	EUR	German regional CPI start being released	Oct
	08:00		04:00	EUR	Spanish GDP (QoQ)	3Q P
	08:00		04:00	EUR	Spanish CPI (YoY)	Oct P
	09:30		05:30	GBP	Mortgage Approvals	Sep
	10:00		06:00	EUR	Economic Confidence	Oct
	10:00		06:00	EUR	Services Confidence	Oct
	10:00		06:00	EUR	Consumer Confidence	Oct F
	12:30		08:30	USD	Personal Income	Sep
	12:30		08:30	USD	Personal Spending	Sep
	12:30		08:30	USD	PCE Core (YoY)	Sep
	13:00		09:00	EUR	German CPI (YoY)	Oct P
	14:00		10:00	EUR	Belgian GDP (QoQ)	3Q P
	14:30		10:30	USD	Dallas Fed Manufacturing Activity	Oct
	21:45		17:45	NZD	Building Permits (MoM)	Sep
	22:30		18:30	AUD	Consumer Confidence	
	23:30		19:30	JPY	Unemployment rate	Sep
	23:30		19:30	JPY	Overall Household Spending (YoY)	Sep
	23:50		19:50	JPY	Industrial Production (MoM)	Sep P
	08:00		03:00	EUR	German Retail Sales (MoM)	Sep
31-Oct	N/A	31-Oct	N/A	JPY	BoJ Rates Decision	
	N/A		N/A	JPY	BoJ 10y Yield Target	
	N/A		N/A	JPY	BoJ Outlook Report	
	N/A		N/A	NZD	New Zealand PM Ardern Releases First 100 Days Plan	
	05:00		01:00	JPY	Housing Starts (YoY)	Sep
	05:00		01:00	JPY	Construction Orders (YoY)	Sep
	06:30		02:30	EUR	French GDP (QoQ)	3Q A
	06:30		02:30	JPY	BoJ Press Conference	
	07:45		03:45	EUR	French CPI (YoY)	Oct P
	07:45		03:45	EUR	French Consumer Spending (MoM)	Sep
	09:00		05:00	EUR	Italian Unemployment Rate	Sep P
	09:15		05:15	EUR	ECB's Visco spks (World Saving Day Event)	
	10:00		06:00	EUR	Unemployment Rate	Sep
	10:00		06:00	EUR	Eurozone GDP (QoQ)	3Q A
	10:00		06:00	EUR	CPI Estimate (YoY)	Oct
	10:00		06:00	EUR	Italian CPI (YoY)	Oct P
	10:00		06:00	EUR	CPI Core (YoY)	Oct A
	12:30		08:30	CAD	GDP (YoY)	Aug
	12:30		08:30	CAD	Raw Materials Price Index (MoM)	Sep
	12:30		08:30	USD	Employment Cost Index (QoQ)	3Q
	13:00		09:00	USD	Case-Shiller Home Price Index (QoQ)	Aug
	13:45		09:45	USD	Chicago PMI	Oct

Source: Morgan Stanley Research, Bloomberg

Ratings

Exhibit 87: Sovereign Bond Ratings

Country	Agency	Aaa/ AAA	Aa1/ AA+	Aa2/ AA	Aa3/ AA-	A1/ A+	A2/ A	A3/ A-	Baa1/ BBB+	Baa2/ BBB	Baa3/ BBB-	Ba1/ BB+	Ba2/ BB	Ba3/ BB-	B1/ B+	B2/ B	B3/ B-	Below B3/ B-
US	Moody	STA																
	S&P		STA															
	Fitch	STA																
JPN	Moody					STA												
	S&P					STA												
	Fitch						STA											
UK	Moody			STA														
	S&P			NEG														
	Fitch			NEG														
GER	Moody	STA																
	S&P	STA																
	Fitch	STA																
FRA	Moody			STA														
	S&P			STA														
	Fitch			STA														
AUT	Moody		STA															
	S&P		STA															
	Fitch		STA															
NETH	Moody	STA																
	S&P	STA																
	Fitch	STA																
FIN	Moody		STA															
	S&P		STA															
	Fitch		STA															
BEL	Moody				STA													
	S&P			STA														
	Fitch				STA													
SPA	Moody									STA								
	S&P								STA									
	Fitch								POS									
ITA	Moody									NEG								
	S&P										STA							
	Fitch									STA								
IRE	Moody						STA											
	S&P					STA												
	Fitch						STA											
POR	Moody											POS						
	S&P										STA							
	Fitch											STA						
GRE	Moody																	POS
	S&P																STA	
	Fitch																	POS

Source: Morgan Stanley Research, Moody's, Standard and Poor, Fitch
STA: Outlook Stable, NEG: Outlook Negative, DEV: Outlook Developing, OW-: On Watch Negative, POS: Outlook Positive, SD: Selective Default

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STOCK RATING CATEGORY	COVERAGE UNIVERSE COUNT	COVERAGE UNIVERSE % OF TOTAL	INVESTMENT BANKING CLIENTS (IBC) COUNT	IBC % OF TOTAL IBC	IBC % OF RATING CATEGORY	OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC) COUNT	MISC % OF TOTAL OTHER MISC
Overweight/Buy	**1162**	**36%**	**304**	**40%**	**26%**	**560**	**37%**
Equal-weight/Hold	**1420**	**44%**	**363**	**48%**	**26%**	**697**	**46%**
Not-Rated/Hold	**58**	**2%**	**6**	**1%**	**10%**	**9**	**1%**
Underweight/Sell	**612**	**19%**	**91**	**12%**	**15%**	**242**	**16%**
TOTAL	**3,252**		**764**			**1508**	

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